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being

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THE DAWN

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AN ORGAN

OF

HIGHER EASTERN & WESTERN THOUGHT.

AUGUST, 1901.

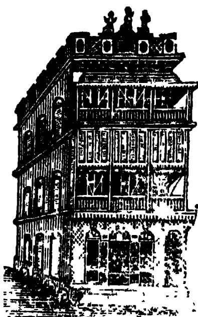
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Novelty in Ayurvedic Medicine.

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Maharaja Sir Narendra Krishna Bahadur K. C. S. I., of Sobhabazar Rajbati, says:—It keeps the head and the brain cool, . . . is free from foreign ingredients.

Maharaja Indra Narain Bahadur of Nepal says:—I was satisfied with its superior fragrance and tendence to promote the growth of the hair, * * * is the best of its kind.

Rajah Sir Sourindra Mohun Tagore, Kt., C. I. E., Music Doctor (Oxon), &c., &c., Pathuriaghata Rajbati, says:—Its fragrance is sweet and lasting.

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Maharaj-Kumar Prodyot Kumar Tagore, son and heir to Maharajah Sir Jotindra Mohan Tagore, K. C. S. I., says:—It has fine aroma and cooling properties: * * * am pleased with it.

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Rasaldar Major Sardar Bahadur Bahawal-din-Khan, C. I. E., (C. I. H.), Native A. D. C. to His Excellency the Viceroy and Governor General of India, says:—It is beautifully scented and invigorates the hair, * * * is really very useful and keeps the head cool.

Surgeon-Major B. K. Basu, M. D. C. M., I. M. S., Gilchrist Scholar, and Medical Officer, 1st Prince Albert Victor's Rajput Regiment, Bengal Infantry, says:—It has a pleasant smell, which is lasting: * * * is cooling to the head.

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'OL. V, NO. 2. Whole No. 50.

THE DAWN

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SEPTEMBER, 1901.

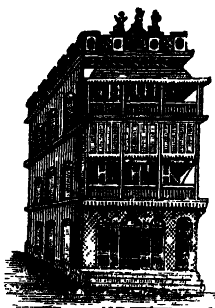
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VOL. V, NO. 3. Whole No. 51.

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समाहृत्य तु तद्भैक्षं यावदर्थममायया

निवेद्य गुरवेऽश्नीयादाचम्य प्राङ्मुखः शुचिः ॥

[Translation :—On procuring the amount of food by alms which is just sufficient and necessary, the Brahmachari must sincerely offer it up to his preceptor with whose consent after sipping some water, he should eat the food purified and with his face turned eastward.]

Gautama also has the following on the point:—

निवेद्यगुरवेऽनुज्ञातं ततोभुञ्जीत सन्निधौ

गुरोरभावे तद्भार्य्यापुत्रसब्रह्मचारिणाम् ।

[Translation :—Let the Brahmachari offer the food obtained by alms to his preceptor and with his consent and in his presence take that food ; and if the preceptor be not then in the house let him obtain the consent of his preceptor's wife or of his son or of his fellow-students.]

An examination of the purport of the above two couplets makes it evident that the Brahmachari had to observe stringent rules in the matter of food and eating : that the Preceptor always took care lest his pupil should be so greedy as to feed himself too much ; that even the Brahmachari was forbidden that sort of food which by generating the inferior qualities of रजः (passionateness) and तमः (inertia) might blunt the memory and intelligence in student life.

But not only in the matter of food but also in that of the conduct of the Brahmachari were there strict rules laid down. Thus, Manu says :—

वर्ज्जयेन्मधुमांसञ्च माल्यं गन्धान् रसान्स्त्रियः

शुक्तानि चैव सर्व्वाणि प्राणिनां चैव हिंसनं ।

अभ्यङ्गमञ्जनञ्चाक्ष्णोरुपानच्छत्रधारणम्

कामं क्रोधञ्च लोभञ्च नर्त्तनं गीतवादनं ।

[illegible]ादञ्च परिवादं तथानृतम् ।

[illegible] प्रेक्षणालम्भं उपघातं परस्य च ।

[Translation :—The Brahmachari must not take honey, meat, [illegible] juice and all sorts of stale things, he must abandon the use of sweet scents, garlands, or the company of females; must not use [illegible] oil, or the black pigment for the eyes (अञ्जन); must not use [illegible] for the feet, or umbrellas for the head. He must abandon lust, [illegible] anger ; must not sing or play upon any musical instrument ;

must not take to gambling, ... must not blame anyon... woman, must ... no account to ... any one.]

All the above rules were to be observed by the student living with his Preceptor.

PRAMATHANATH TARKABHUSHAN,
Professor of Hindu Law and Philosophy,
Government Sanskrit College, Calcutta.

SIR GEORGE BIRDWOOD'S APPEAL TO EDUCATED HINDUS.

On May 16, 1901, a very interesting paper on the "Town an Island of Bombay—past and present" was read before a distinguishe audience at the Imperial Institute, by Mr. L. R. Windham Forres one of the leading and most enterprising of the merchants of Bomba Sir George Birdwood, K. C. I. E., C. S. I., being in the chair. Reader of this magazine may not feel very great interest in the early histor rise and growth of what Sir George describes as the "future capital o India," as unfolded in Mr. Forrest's paper; but the discussion whic followed the reading of the paper elicited certain most important fact and observations from Sir George Birdwood which ought to be know and pondered by all educated Hindus. We publish* elsewhere portion of his speech in which he dwells specially on the Hindu shrine and temples of Bombay. He is not a revolutionist, but an evolutionis in his treatment of men and races, and above most things, h believes in the mission of *living* Arts as a factor in the upliftin refining and chastening and sweetening of the outer and the inn lives of peoples and races. About two years ago, at a meeting of th National Indian Association, he expressed himself that "inspiration and ideas are to be sought, as from the beginning, not without us, bu within; that the artist who studies his art in ... remains, in i literature, and in its practice,—that of his contemporaries and h own,—and particularly in its human relations, an integral part of th supreme art of life will never be wanting in ideas or inspiration" an further that "the true use of Art is not to real... ily illustrate lif but to render life in the highest sense illustrious; to purify and ... ennoble and elevate it,—in a phrase to lift up the heart o... Here he treads very closely Mr. Ruskin's steps with whom the be...

* *Vide* pp. 112—115 of Vol. IV. of this Journal.—*Ed.*

Art is also spiritual, or typical of divine attributes; the forms of typical artistic beauty being; according to Ruskin (*vide* Vol. II of "*Modern Painters*"), (1) *Infinity* (typical of divine incomprehensibility); (2) *Unity* (or divine comprehensiveness); (3) *Repose* (or divine permanence); (4) *Symmetry* (or divine justice); (5) *Purity* (or divine energy); and (6) *Moderation* (or government by Law). And Sir George Birdwood in the meeting before the National Indian Association to which we have referred makes point of the fact that in the revival of the indigenous and traditionary culture of the Hindus, special importance attaches to the conservation of the Hindu graphic arts, first because they are *living* arts, and secondly also because they are, in all phases, in architecture, sculpture and painting—the expression of Hindu religion, and in their application, of religious significance. Sir George is evidently against a violent break in the continuity of religions—which, according to him, must refine and elevate themselves on traditional lines and not according to some foreign formula And it is easy for us to understand his belief that if we gave up our fathers' gods merely to take over the formulas of foreign churches, it would be our moral, intellectual and spiritual destruction; while, on the other hand, if we gradually develop all that is good in Hinduism and patiently and considerately eliminate everything that is merely superstitious, it will be not any individual salvation, but the salvation of all India. In a letter to us published on pp. 324—327 of Vol. II. of this journal, he enforced his views that "the modification must come naturally and spontaneously and gradually, as if *subjectively*, and that we could acquire no enduring culture save in this voluntary and slow and sure way; that for our literary and artistic and philosophical and religious—in a word, our spiritual culture, we already possess our own—the indigenous growth of 4000 years of Aryan supremacy in India, and that we must never surrender it but to the utmost of our ability and power strengthen it and extend its influence." Evidently, therefore, Sir George is no revolutionist but an evolutionist in his treatment of the Spiritual Problem in India. And between the arts of India and her literature he attaches greater importance to the former, because "they, being living arts and in every application of deep religious significance, afford a more efficacious rallying centre for the revival of the indigenous and traditionary culture of the Hindus than their literature."* Speaking of the numberless shrines in the Town and Island of Bombay at the meeting of the Society of Arts at the Imperial Institute, he observed that "they all deserve attention, for they are all land-marks of social

* Spoken at the meeting of the National Indian Association.—Ed.

and religious and also of political history; and he particularly desired to impress upon both the educated and wealthy Hindus of Bombay the duty that lay on them before any others of numbering and registering all the shrines of the Island, recording their history and legends, and so far as possible restoring them on a scale and in a manner proportioned to their historical and religious importance and the architectural suggestiveness of their sites." And he concluded by saying that "if they had any proper pride in the maintenance of their great historical personality, and the continuity of their sacrosanct social organisation, and communal polity, and any interest in the evolution of their profoundly idiosyncratic religion, arts and general culture, they must feel this obvious duty to the ashes of their fathers and the altars of their gods."* We join most heartily in this spirited appeal, and we desire to emphasize the importance of our taking proper pride in the maintenance of our historical personality; for if we once begin surrendering our naturally evolved and instinctive vernacular culture *in any of its departments, all the rest* will be inevitably involved in its decay; the historical personality of the Hindus will be destroyed, and we shall disappear as a distinctive race. Besides all this there is another and to our mind a most cosmopolitan interest attached to the question of the preservation of the artistic remains in India, which cannot, it seems to us, be better expressed than in the ever-memorable and most eloquent words of one of the ablest and most accomplished, and most broad-minded of modern Indian Viceroys, Lord Curzon of Kedleston.—"Art and beauty and the reverence that is owing to all that has evoked human genius, or has inspired human faith, are independent of creeds, and in so far as they touch the sphere of religion are embraced by the common religion of all mankind. Viewed from this standpoint, the rock-temples of the Brahmans stands on precisely the same footing as the Buddhist Vihara, and the Mahomedan Musjid as the Christian Cathedral. There is no principle of artistic discrimination between the mausoleum of the despot and the sepulchre of the saint. What is beautiful, what is historic, what tears the mask off the face of the past, and helps us to read its riddles, and to look it in the eyes,—these and not the dogmas of a combative theology are the principal criteria to which we must look. Much of ancient history, even in an age of great discoveries, still remains guesswork. It is only being slowly pieced together by the efforts of scholars and the outcome of research. But the clues are lying everywhere at our hand in buried cities, in undeciphered inscriptions, in casual coins,

* *Vide* Journal of the Society of Arts, June 14, 1901.—*Ed.*

in crumbling pillars, and pencilled slabs of stone. They supply the data by which we may construct the annals of the past, and recall to life the morality, the literature, the politics, the art of a perished age."*

EDITOR.

THE HINDOO TEMPLES AND SHRINES OF BOMBAY.

The oldest actual Hindoo temple in Bombay is marked by its ruins, attributed to the 7th century, A.D., in the Seeree, *i.e.*, "Steep," Road, leading from Chowpatty up the eastern face of Malabar Hill; the image built into the wall of a garden on its site is said to have belonged to it, and is named Lukadavee. But the most interesting ruined temple in Bombay is that of Wulkeshwar, "Lord of the Sand," at the southern point, Sree Goondee [*i.e.*, Lucky Stone], of Malabar Hill, attributed to the 9th or 10th century, A.D. It was blown up by the Portuguese, after their wont with the shrines and sanctuaries of the Hindoos, but the triform head of Wulkeshwar himself was found among its ruins early in the last century, and is now safely lodged in the India Museum galleries, next door to them. Next in antiquity and most important of all the Hindoo temples of Bombay, is that of Mombadavee [*i.e.* Maha, Umba, Amba (Umma, Amma, cf, "mamma"), Devi], "the Great Mother Goddess" [*i.e.* Kalee, or Doorga, the wife of Seewa, here in one of her most benignant aspects] of the Coolies of Bombay, and the tutelary and patroness of all Hindoos in Bombay, and for all the world, "Our Lady of Bombay." Architecturally it is quite unworthy of its "numen," or, as it might be more correct for me to say, "nomen;" but it contains not only the shrine of Mombadavee, but shrines of Seewa, Hunnoomunt, Gunpooty [Gána-pati or Ganesa], and others; and the shrines of Our Lady of Bombay and the Monkey God are thronged all day by the Coolies; and, all day long the worshippers at all the shrines pass to and fro, and the smoke of the incense rises up on every side, and the tinkling of little bells, and the clangour of larger ones, fills the whole air around. My father once obtained admission into the temple for the missionary, Joseph Wolf. He was deeply affected by the worship and burst into tears, overcome by the thought that the ritual of the Temple of his race should be so prostituted as he

* From Lord Curzon of Kedleston's speech on "Ancient Monuments in India" delivered before a meeting of the Asiatic Society of Bengal, 1900.—*Ed.*

expressed it to the service of devils. [Tacitus, A: II, 85, Judaica sacra; H. II, 4, J: superstit: pervicacia]. My earliest associations were with the rippling and clanging of those bells, and to him,—and was not he too a Cooly of Bombay?—no part of the Old Town was more fascinating, than the precincts of the Mombadavee temple. The temple of Mahalukshmee [wife of Veeshnoo], literally "The Great Luck," and here "The Great Prosperity of Bombay," is smaller than that of Mombadavee, and less important in the estimation of the Hindoos; but it is the most conspicuous of all in the Island, and has a singular and most suggestive interest for all Englishmen. The goddess is associated in the temple with Suruswuttee, the wife of Brahma, and Parwuttee, the wife of Seewa, in another of her benignant aspects. At one time their three images were enshrined in a temple at Woorlee, the *Ficus indica* Grove. But on the Mahomedans invading the Island the goddesses carried them down into the depths of the sea, by Breach Candy, between Worlee and Cumballa Hill, there to find a sure refuge from profanation in the submarine palace of Varoonna. But on the establishment of the English on the island, the three gracious goddesses appeared before a fisherman who was casting his net under Worlee, and told him that they now greatly desired to return to the Island if the English would grant them a site for a new temple; in which case they offered to help them in building the Vellard, or "embankment," across Breach Candy. Governor Hornby at once, so the tradition now at last recorded by da Cunha, runs, acceded to the wishes of the three shining ones, and gave them the ground on which the present temple, overlooking Breach Candy, is built. The existence of such a tradition is a remarkable proof of the deep abiding sense the people of India everywhere entertain of the security, justice, and freedom they enjoy under British rule. If also actual history is mythologised in the tradition, it supplies another illustration of the truly Hellenic spirit, the only true Imperial spirit, which actuated the whole policy of the East India Company in its relations with the social and religious life of the Hindoos. Moreover, the fact that the Breach Candy Temple of the three "suktees" [*i.e.* female powers of the Hindoo Triad] is now known only as the temple of Mahalukshmee, "The Great Prosperity" is most poetical and emphatic evidence of the grateful and devout recognition by the Hindoos of Bombay of the unprecedented material benefits in which they have luxuriated, not to say revelled, from at least 1708, under British rule. The pity is that this temple again should be unworthy of its glorious site. A similar legend is current of the temple of Phruboowattee, the worship of

the Prubhoos, in Mahim. On the Portuguese taking possession of the Island in 1530 the image of the goddess was hidden away from them in a well, where it remained until 1739, when the goddess appeared to one of her worshippers in a dream and bade him restore her temple and her image to it. The image is interesting also as one of the few to be seen in Bombay possessed of anything like the grace and beauty and sweetness which in the West we associate with the statues of goddesses. Again, it is said of the Gramyadavee ["Village-Goddess"] temple under Malabar Hill, that its image, another benignant form of Kalee, under the name of Leelawattee, remained hidden among the rocks above Chowpatty until its hiding-place was revealed in 1718, only ten years after Bombay was made a Presidency Town, independent of Surat, to Bapoojee Mahtre. The name of the goddess and her discoverer make one curious to know whether the latter was an ancestor of Mr. Mahtre, whose statuette as Suruswattee attracted so much attention at the Paris Exhibition last year, and who is also known for his charming statuette of a Hindoo girl proceeding, with an offering of flowers, "To the Temple." There are other notable temples in Bombay, such as the Baboolnath temple, Fryer's "prodigious pagoda," on the top of Malabar Hill; the Bhuvanee-Shankar temple, near Gowally Tank; the Thakordwar ["Lord of the (open) Door"] temple of Rama and Lukshman, in Giergaum; the Ramdavee, Withalwady, and Khalkadavee Temples, in Khalkadavy; the Bholeshwar temple, sacred to Seewa, as "The Providence of Fools," in the ward of the same name; the Gunpootty temple in the "Cloth Market,"—

> "Where the outland merchants sit,
> Like kings above their merchandise,
> Lying to foolish men and wise;"

the Venkatesha temple in "the Fort"; and the many temples of Hunnoomunt to be found in every ward of the Town, and every village of the Island. The lesser, and obscurer shrines, some mere stocks and stones, are almost numberless; but they all deserve attention, for they are all landmarks of social and religious, and as has been shown, of political history. I would emphasise the fact that, without exception all these Hindoo temples of Bombay are of joyous gods. Even the Saiva temples are of beneficent aspects of Seewa, or Kalee. This note of joy is the predominant characteristic of Hinduism, and of Hindu art, which is ritualistic art. It is clear and resonant throughout Gujerat and Kattyawar; and would appear to be increasing in volume over all Western India. Surely this is a

fact of some political significance, and deserving of some consideration from English statesmen, and publicists, and politicians, interested in the intelligent, righteous, and sympathetic administration of British India. In conclusion, I particularly desire to impress upon both the educated and the wealthy Hindoos of Bombay the duty that lies on them before any others, of numbering and registering all the shrines on the Island, recording their history and legends, and so far as possible restoring them on a scale and in a manner proportioned to their historical and religious importance, and the architectural suggestiveness of their sites. If they had any proper pride in the maintenance of their great historical personality, and the continuation of their sacrosanct social organisation, and communal polity, and any interest in the evolution on traditionary lines of their profoundly idiosyncratic religion, arts, and general culture, they must feel that they owe this obvious duty to the ashes of their fathers and the altars of their gods.

GEORGE BIRDWOOD.

THE PROBLEM OF RELIGION ACCORDING TO THE RISHIS: V.—FACTORS IN MIND-CONTROL.

In our last article (see pp. 369-374 of this journal), we sought to establish by the method of verification the truth of one fundamental proposition, which for our purposes of exposition of Rishi-philosophy we have taken as our starting point—the proposition, namely, that mere belief or disbelief (as the case may be), however strong, in the truth of the same things on the part of different persons must not be confounded with either the truth or falsity of the things themselves(1); for it may be brought about by many causes which may have

(1) Fowler in his Inductive Logic (pp. 260-61) says:—"When men first began to argue from their experience of the past to their expectation of the future, as from the observation of what immediately surrounds them to the properties of distant objects, they seem naturally to fall into this unscientific and unreflective mode of reasoning. They have constantly seen two phenomena in conjunction and consequently they cannot imagine them to be dissociated, or they have never seen two phenomena in conjunction, and consequently they cannot imagine them to be associated. The difficulties experienced by children in accommodating their conceptions to the wider experiences of men, the tendency of the uninstructed, and frequently even of the instructed to invest with the peculiar circumstances of their own time or country the men of a former generation or of another land, the prejudices entertained against those of another creed, or party, or nationality as of moral excellence were never dissociated from particular opinions or a particular lineage,—are all evidences of "the limited character of our first efforts at generalisation."

nothing to do with the thing itself and may be derived from facts in and outside us—such as the influence of surrounding conditions of social, political, religious, domestic life, *etc.*, and (2) the want of experience, the want of culture or education or the influence of the native tendencies of the mind. And the direct corollary from the above proposition was that the influences of which we have spoken and which corrupt the mind and divert it from the straight path—that these influences must be laid aside, surmounted, or eliminated before the right investigation of truth is possible. It is just as if you were charged, as an honest juryman—by the presiding judge to keep out from your mind all outside influences, pre-conceived notions, your personal likes and dislikes when you enter upon the solemn task of adjudging the right or the wrong, the truth or the untruth of a case. This attempt at keeping the mind free from the influence of conditions, internal and external, constitutes the *First Steps to Discovery*. In the investigation of the problems of the Physical Sciences, Western scientists have sought to frame for their guidance certain rules whereby the influences to which we have referred are not removed, but the effects of these influences are counteracted, minimised or allowed for. You would remember this vital point for on it hangs one most essential distinction between the methods pursued in the West and in the East. The point is that the Western scientist allows the human mind to remain as it is, in investigating the unseen laws of objective phenomena; but its suggestions are not by him taken as true unless they could be verified. *It is allowed to* suggest theories which apparently explain particular phenomena. But the Western scientist recognises that these theories have sprung out of the mind which is tainted by the various influences to which we have already referred. Therefore, to make sure his position he devises *experiments*—which is artificial observation; and he also resorts to impartially observing fresh facts which may either disprove or con-

(2) Buckle in his 'History of Civilisation' (Vol. I., p. 162) says:—"If we look at mankind in the aggregate, their moral and intellectual conduct is regulated by the moral and intellectual notions prevalent in their own time. There are, of course, many persons who will rise above these notions and many others who will sink below them. But such cases are exceptional and form a very small proportion of the total amount of those who are no wise remarkable for either good or evil. An immense majority of men must always remain in a middle state neither very foolish nor very able, neither very virtuous nor very vicious, but slumbering on in a peaceful and decent mediocrity, adopting without much difficulty the current opinions of the day, making no inquiry, exciting no scandal, causing no wonder, just holding themselves on a level with the generation and noiselessly conforming to the standard of morals and of knowledge common to the age and country in which they live.'

trovert, or weaken his theory. If his theory is right, argues the scientist, then surely a careful experiment on the lines of his theory ought not to go against the theory but ought to confirm it. This is known as the method of scientific *verification.* This is subjecting your mind-born and mind-tainted ideas, theories, principles, suggestions etc., etc., to the test of facts which can be observed, seen, verified and experimented on. Bacon would call this marriage of theory (born of the mind in the presence of given facts) with fresh observations (whether natural or artificial)—the *Interpretation* of Nature—as distinguished from what he calls *Anticipation* of Nature or *mere* theorising, *i.e.*, unverified theorising. In indulging in anticipation, "the mind delights in springing up most general axioms that it may find relief; but after a short stay here it disdains *experience* (*i.e.*, verification)" and these mischiefs are at length increased by disputation for the ostentation of logic"(3). (Bacon's Novum Organum, sec. 20). "*Anticipations* have a much greater power to entrap the assent than *interpretation*; because being collected from a few particulars they immediately strike the mind and fill the imagination." (*Ibid*, sec. 28). "Again: though the labours and capacities of men in all ages were united and continued, they could make no considerable progress in the Sciences by anticipation because the radical errors in the first concoction of the mind are not to be cured by the excellence of any succeeding talents and remedies." (*Ibid*, sec. 30) (4).

This attitude of the mind in truth-investigation, *viz.*, not to rest satisfied with mere mind-born principles and theories; and the anxiety to bring them to the test of experience, *i.e.*, of fresh further facts observed naturally or artificially under special conditions—this habit of the mind constitutes, in our humble judgment, a most important preliminary in the work of mind-control, a most important corrective to the tendencies of the mind to drift along the current of those influences of internal and external conditions which, as we explained in a previous article, are the primary sources of error in

(3) "Men have constantly been employed in *anticipation*, in illicit induction. The intellect left to itself rushes on in this road. But still the method must be rejected if we would obtain true knowledge. We must rise not by leap, but by small steps, by successive advances, by a gradation of ascents, *trying our facts and clearing our notions at every interval.*"—Whewell.

(4) "When we have amassed a greater store of general facts, they become the objects of another and a higher species of classification and are themselves included in laws which have a far superior degree of generality till at length by continuing the process we arrive at axioms of the highest degree of generality of which science is capable. The process is what we mean by *induction.*"—Herschell.

truth-investigation. But we must always remember that the Western scientist is no enemy to theorising; for all scientific investigations and discoveries have been successful only by means of theorising. But there are theorisings and theorisings. The scientific theoriser begins with certain facts and then *imagines* with the help of the facts a theory or hypothesis, *i.e.*, some unproved but supposed general proposition to explain some particular, unexplained phenomena. *But he does not rest there.* He believes his theory to be true, but *he is prepared to reject it if it cannot be verified.* Therefore, what he does is this: he first uses *facts* to suggest a probable hypothesis; then, assuming and believing that that hypothesis is true, he deduces from it other facts which must be true if the hypothesis be true. Then he proceeds to test these deductions by fresh observations. If the result proves different from what he expects it leads him to modify or abandon his hypothesis and to begin afresh. But supposing fresh observations as aforesaid confirm his theory, *i.e.*, his original anticipation, he still does not rest satisfied, but he proceeds to make new combinations of his own, new trials, *i.e.*, experiments to test his theory. That is how he proceeds. Imagination, theory, suggestion, beliefs, all mind-born and however tainted by the influence of internal and external conditions are not rejected but are used as helpers, as servants but not as masters. "In explaining sensible phenomena," says Tyndall, "we habitually form mental images of the ultra-sensible.' This is theory, this is imagining pure and simple (5); but *every*

(5) "But how are those hidden things to be revealed? Philosophers may be right in affirming that we cannot transcend experience; we can, at all events, carry it a long way from its origin. We can magnify, diminish, qualify and combine experiences, so as to fit them for purposes entirely new. In explaining sensible phenomena we habitually form mental images of the ultra-sensible. There are Tories even in science who regard imagination as a faculty to be feared and avoided rather than employed. They have observed its action in weak vessels, and are unduly impressed by its disasters. But they might with equal justice point to exploded boilers as an argument against the use of the steam. 'With accurate experiment and observation to work upon,' *Imagination* becomes the architect of physical theory. Newton's passage from a falling apple to a falling moon was an act of the prepared imagination without which the "laws of Kepler" could never have been traced to their foundations. Out of the facts of chemistry the constructive imagination of Dalton formed the atomic theory. Davy was richly endowed with the imaginative faculty, while with Faraday its exercise was incessant, preceding, accompanying and guiding all his experiments. His strength and fertility as a discoverer is to be referred in great part to the stimulus of his *imagination.* Scientific men fight shy of the word because of its ultra-scientific connotations; but the fact is that without the exercise of this power, our knowledge of nature would be a mere tabulation of mere co-existences and sequences." (Tyndall's Fragments of Science, Vol. II., pp. 103-104).

theory has to be verified. That is how the Western scientist combats the corrupting and tainting influence of those conditions, inner and outer, to which the human mind is subject. He controls the suggestions of the impure mind by verification (6). For the human mind "if left to ramble uncontrolled leads us astray into a wilderness of perplexities and errors, a land of mists and shadows; but if properly controlled by experience and reflection becomes the source of poetic genius, the instrument of discovery in science." (*Sir Benjamin Brodie's Address to the Royal Society, London, 1859*) (7).

We have already said that for truth-discovery the disturbing factors the influences of the external and internal conditions must be either eliminated or counteracted. In Western science, effects of those influences are sought to be counteracted, *i.e.*, the human mind is not directly sought to be purified. The West seeks to combat them *indirectly*; the East seeks to combat them *directly*, devises methods to purify the mind itself. Western science does not go to the root of the matter; it applies the human mind to particular problems, uses the mind to suggest theories, and then tests the consequence of those theories on phenomena which come within the range of our senses and accepts or rejects, or modifies and tries again. Consequently as Professor W. M. Hicks, M.A., D. SC., F.R.S. (in his Presidential address to the mathematical and physical science section of the British Association, 1895) declares,—" it (*i.e.*, this theorising and then experimenting or verify-

(6) Fowler in his "Inductive Logic" (pp. 242-243) says:—"Not only will a preconceived opinion or a powerful affection come in aid of men's natural tendency to dwell on affirmative and overlook negative instances, but they will often cause men to adhere to theories for which, whatever may have been the history of their formation, there is absolutely no support whatever in fact. Thus the theory which prevailed down to the time of Galileo, that bodies fall to the earth in times inversely proportional to their weight, so that a body weighing say five maunds, would fall in a time five times as short as a body weighing one pound rested on absolutely no evidence except the fact that, in consequence of the resistance of the air, the heavier body reaches the ground in a somewhat shorter time than the lighter one; still, till Galileo made his experiments, at the end of the sixteenth century from the leaning tower of Pisa no one thought of bringing to decisive test a theory which was so easy to prove or disprove."

(7) "Lastly, physical investigation, more than anything besides, helps to teach us the actual value and right use of the imagination—of that wondrous faculty, which, left to ramble uncontrolled, leads us astray into a wilderness of perplexities and errors, a land of mists and shadows; but which, properly controlled by experience and reflection, becomes the noblest attribute of man; the source of poetic genius, the instrument of discovery in science, without the aid of which Newton would never have invented fluxions, nor Davy have decomposed the earths and alkalies, nor would Columbus have found an other continent." (From *Address to the Royal Society, London, by its President Sir Benjamin Brodie, November 30, 1859*).

ing) is a *slow* and *laborious* process; the wreckage of rejected theories is appalling; but a knowledge of what goes on behind what we can see or feel is surely, if slowly, being attained. It is the rejected theories which have been the necessary steps towards formulating other theories nearer the truth."

We will on a future occasion explain the Rishi or the direct method of combating the influences of the impure human mind in drawing us away from the truth. But we want to make it clear that the indirect method of truth-investigation of Western science although it is, as above explained, undoubtedly "a slow and laborious process" and involves "an appalling wreckage of rejected theories," exerts a most important influence on the impure human mind. For an analysis of the forces working upon our minds must have made it clear to us that by its constitution the mind is an untruth-seeker, if we may so express ourselves; an error-seeker; an error-lover almost. Therefore, to correct this native proneness of the mind to error, a check has to be provided: and the practice of the scientific method sketched above,, the accustoming of the feelings not to rest content with mere beliefs or suggestions of the inner consciousness, but to spur them on to habits of research into, and verification of, those beliefs and suggestions—the practice of the above method is in itself a most important spiritual discipline. The practice of the scientific method of marriage of belief-theories with verification accustoms the human mind to love truth for the sake of truth; by keeping the activities of the mind within the bounds of facts; it stimulates the desire for personal truth-investigation and prevents us from indulging in mere catch-words or conventional formulas of religious philosophy; it improves self-respect and sense of responsibility; it strengthens our convictions and our courage and weakens at the same time the brute instinct in us to *compel* obedience to our views and ideas; it breeds in us a wider charity to our enemies and opponents by making us feel at every step the supreme difficulty of arriving at the truth with the aid of a mind that is subject to internal and external distracting and corrupting influences and conditions which are ceaselessly acting. In a future article, however, we will explain the limitations of the verification method, as understood and expounded in the West, with a view to bringing out more clearly the chief features of Rishi-methods.

EDITOR.

THE SECRET OF LONG LIFE.

[WRITTEN FOR THE *Dawn*: BY JOHN F. MORGAN, 1507 N. Y. BUILDING., CHICAGO, U. S. A.]

It lies in breath and chest exercise. If you would have good health, brilliant mind, enjoy life, be happy and successful, live long and be physically and mentally strong, you must harmoniously tune yourself up, find out your correct keynote and build for yourself an individual physical body, the same as you would build a material house in which to live, and stop paying rent and taking the chances of being evicted by the landlord,—all of which is very easily done when you know the laws of breath and health culture, as are now being taught to over 300 pupils by Rev. Dr. Ottoman Zaradusht Hanish, Rab-Magi of Math El-Kharman Temple, Persia, free of all charge, in a course of twelve lessons, one each week, of one hour's duration, in which the pupil is instructed in the laws and rules of health, and an exercise illustrated, which is to be practised at home three times a day for three minutes each day, between sunrise and sunset for one week, to bring the individual into a moral condition. The exercises are very simple, yet thoroughly scientific.

DEEP BREATHING GENERATES VITALITY,

and is an exercise that if scientifically practised will raise the physical standard to a condition of perfect harmony, which is good health. The pupil is taught to sit in an upright position, spinal column straight, other limbs and muscles relaxed, with weight of the body balanced upon the base of the spinal column and weight of lower body balanced on the balls of the feet, hands resting lightly on the knees with thumbs out, since the will power is represented in the thumb, and a closed thumb represents a negative condition. In walking we should close the fists, since an open hand is liable to absorb all the vibration that is afloat in the atmosphere. That is the cause of sensitive ladies feeling depleted after mingling with a crowd.

Breath is life. Correct breathing is the most important step toward consciousness of life. To gain the greatest benefits from breathing it is necessary to breathe the individual breath. The purpose and object of such rhythmical breathing is to attract, retain and distribute Ga Llama (Ga—centralizing, Llama—life principle), which is contained in the oxygen of the air we breathe, and manifests its greatest effects during the light period, from sunrise to sunset. The result of this is the building of life-tissues throughout the body,

the setting of the brain functions into their normal condition, the development of the twelve senses to the highest degree, the increase of the vibrations of the ganglia of the nervous system, the regulation of the circulation of the blood and its purification, and the magnetic circles of individuality in which all live, move and have their being.

HOW BREATH IS FORMED.

This breath begins with the filling of the upper lobes of the lungs, thus opening the cells of the entire lungs, which is the greatest factor in man's existence—the mainspring of life—setting all the magnets of organic existence into activity, normalizing or centralizing the cellular tissue, building substance, insuring longevity, and consequent perfect youthfulness. The newly-born child breathes first before giving attention to feeding. Where the breathing is faint it must be established by vigorous manipulations to such a degree as to give the necessary vigor and force before nursing. Should breathing fail, life is lost, and no force will retain or regain it. The breath must be full, regular and easy, without strain or a feeling of discomfort to any part of the system.

Physical culture, to be of benefit, must necessarily pay attention to perfect breathing, since through the applied breath the nervous system becomes normalized, and the muscles are strengthened and developed without apparent effort. The individual breath being properly established, pure, wholesome ideas will follow because of the centralized sense condition, resulting in common sense. Then it will be known what, when, and how much to eat and drink. Instead of filling the stomach with food sufficient for eight or ten persons, the requisite amount for one person only will be used. Sickness, constant struggle through life, extreme wealth and poverty, the result of unbalanced brain conditions, will no longer be known. The medical student will not write prescriptions, but will be in the kitchen superintending the cooking and preparation of foods; the patience of the pharmacist will no longer be tried by the compounding of drugs, but he will derive his principal revenue from the sale of cosmetics, lotions, perfumes, etc. Medical schools will turn into cooking schools, where formulæ will be studied for the preparation of various foods. Physical culture and gymnastics will take an elevation to higher realms.

Correct breathing builds up the brain. We must learn how to take brain breath and not stomach breath. The only way to accom-

plish this is to concentrate the mind and control every vibration of the nerves and polarize every atom of the entire system.

THE REAL ELIXIR OF LIFE.

By right breathing one can bring himself in harmony with his Creator or source of life. This is the elixir of life that the world seeks. To be in entire harmony with the Creator of this universe is a privilege man possesses, but does not use because he is ignorant of the powers he possesses.

Right breathing opens the doors to all that is desirable. It is the key to unlock the secret of life. It vitalizes, refines and spiritualizes all one's life-forces and puts one in control of every emotion and sensation of the body, thus uniting the lower with the higher will. When we were born we breathed "Mother-Earth Breath" about three seconds at each inspiration, but we must learn to breathe the "Brain Breath," a rhythmic breathing of about seven seconds to each inspiration and respiration.

CORSETS TO BE AVOIDED.

In all breathing exercises all strained action is to be avoided. Our clothes should be loose. Ladies should not be harnessed up with corsets. When we take our right position we need no support, the spinal column being properly adjusted. Our rooms should be well ventilated with plenty of sunshine, and decorated with colors that harmonize with our different temperaments. Our clothing should also be adapted to our temperaments. While the magnetic temperament can wear to great advantage certain fabrics, texture and colors, the electric temperament needs a different kind. But fine silk underwear, which is the cheapest in the end, seems to be a common meeting ground. When we retire at night we should relax every muscle of the body from all tension and take full and regular inhalations through the nostrils until asleep. Suggest to ourselves that we go to bed to rest and recuperate the physical body. Sleep with the head to the north and upon the right side.

When we awaken in the morning we should open our windows and, if possible, face the east, and take long, regular, breathing deep exercise for three minutes.

During the day in walking always walk on the ball of the foot; never throw the weight upon the heel since it jars the nervous system.

MENTAL GYMNASTICS GOOD.

Mental gymnastics are a good thing to practise in connexion with all breathing exercises. We must concentrate the mind upon why we breathe, *viz.*, to obtain by each inspiration more life than we inhale, and when we exhale we desire to expel from the system all the effete matter. By such breathing one can generate vital force and make nimble the stiffest muscles. Repeated during the day it will aid in overcoming many of the undesirable conditions that the human body takes on, thus exhilirating every atom, cell and organ of the body. Will-power is required to concentrate the mind upon what one is doing at all times, to overcome the drifting tendency of the senses. We have twelve senses, seven full senses and five half senses, which correspond with the seven full notes and five half notes of the musical scale: and when we have these twelve senses properly developed they emerge into the thirteenth sense, which is common sense, that point of development which we are all striving to obtain to become self-centered, well-poised beings. When we become masters of ourselves and all that surrounds us, the elasticity of the body and the clearness of the mind, the strength of the memory, that follow the continuance of these exercises are declared to be beyond credibility, and the poise and comfort that succeed more than repay those who understandingly practise them. This brings to each one the "Kingdom of Heaven," which is within, and no one will ever find it in any other place than within himself. We have wasted too much time in the past in looking everywhere outside of ourselves for it, *and the secret of life is to be found in breath and the control of thought*, because thought is like God, creative; we create our conditions and environment by the power and kind of thought we entertain. "As man thinketh, so is he" (*a*).

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(*a*) The reader will remember the Sastric aphorising "यादृशी भावना यस्य सिद्धिर्भवति तादृशी."—*Ed.*

SVARAJYA-SIDDHIH—XXIII.

[Continued from page 369, Vol. IV.]

When in the state of profound sleep one does not possess any desires nor does dream any dreams, it is said to be Sushupti (*a*). All the perceptions (both gross and subtle) of the mind in the states of waking and dreaming become unified and compressed into one compact mass; they do not lose their own individual forms and existences, but just as the things of the world, distinguishable from each other in the day-time, look like one compact mass of darkness when shrouded with the sable vesture of a moonless, pitch-dark night; even so, all these Samskaras or impressions, remain hidden in the darkness of nescience (aviveka). "In profound sleep a man has got rid of all the *devplopments* of ignorance, yet he is still wrapped in Ignorance itself" (*b*). "In profound sleep the soul is absent, having retired by the channel of the arteries, and being as it were enfolded in the Supreme Deity. It is not, however, blended with the divine essence, as a drop of water fallen into a lake when it becomes undistinguishable; but, on the contrary, the soul continues discriminate, and returns unchanged to the body which it animates while awake. Swoon or stupor is intermediate between sleep and death. During insensibility produced by accident or disease, there is, as in profound sleep and lethargy, a temporary absence of the soul. In death it has absolutely quitted its gross corporeal frame" (*c*). [Colobrooke's Essays, I. 398.]

The Purusha residing in the seat of profound sleep (*viz.*, the heart) is the third *matra* म् of the Pranava. In the aggregate this is known as *Is*wara and in the distributive aspect as Prajna. This represents the causal aspect of the cosmos. The *A*nandamaya Kosha forms its body, (*d*) and the intelligence is its sole organ of perception.

(*a*). यत्र सुप्तो न कंचन कामं कामयते न कंचन स्वप्नं पश्यति तत् सुषुप्तम्। Mandukyopanishad, 5.

(*b*). See *Dawn*, Vol. IV. page 208.

(*c*). सुषुप्तस्थान एकीभूतः प्रज्ञानघन एवानन्दमयो ह्यानन्दभुक् चेतोमुखः प्राज्ञस्तृतीयः पादः। Mandukya, 5.

(*d*). अखिलकारणत्वात् कारणशरीरं आनन्दप्रचुरत्वात् कोशवदाच्छादकत्वाच्चानन्दमयकोशः सर्वोपरमत्वात् सुषुप्तिः अत एव स्थूलसूक्ष्मप्रपञ्चलयस्थानमिति चोच्यते। Vedantasara.

For reasons stated above, it is said to be Prajnana-ghana or one compact mass of knowledge. Both *I*swara and Pr*a*jna enjoy bliss by means of the very subtile modifications of Ignorance, lighted up by intelligence; because when a man rises up from profound undisturbed sleep, he feels a sensation of pleasure and says to himself, 'I have slept very pleasantly and did not know anything' (*e*). This Pr*a*jna is the lord of all, is omniscient, controls everything by residing within; this is the source of all; verily it is the origin and the final re-absorbent of all beings (*f*).

The points of resemblance between the Pr*a*jna and म् are the following: (*First*), just as in finishing the pronunciation of "*Om*" and repeating it again, अ and उ enter into and then come out of म् and so are measured by it, so Viswa and Taijasa enter into the Pr*a*jna at the time of the dissolution of the universe and again come out at the time of the creation. And secondly: just as in pronouncing "*Om*" अ and उ become united in the last letter म्, so at the time of Sushupti Viswa and Taijasa become unified and compressed in the Pr*a*jna. He who knows this knows the truth of everything and becomes the resort of all (*g*). Says the Prasnopanishad, "He who meditates on the supreme Purusha by means of these three *matras* gets the luminous world of the Sun; just as a snake casts off its slough, so he getting free from his sins is elevated to the world of Brahm*a* (Hira*n*yagarbha) by the Mantras of the Samaveda. He there sees the Purusha who is far greater than that totality of individual souls (who is called Hira*n*yagarbha), and who resides in all bodies" (*h*).

(*e*). तदानीमेतावीश्वरप्राज्ञौ चैतन्यप्रदीप्ताभिरतिसूक्ष्माभिरज्ञानवृत्तिभिरानन्दमनुभवतः । आनन्दभुक् चेतोमुखः प्राज्ञ इतिः श्रुतेः सुखमहमस्वाप्सं न किंचिदवेदिषम्" इत्युत्थितस्य परामर्शोपपत्तेश्च । Vedant*a*s*a*ra.

अत्रैष देवः स्वप्नान्न पश्यत्यथ तदैतस्मिञ्शरीरे एतत् सुखं भवति ।

Prasnopanishad—IV. 6.

(*f*). एष सर्वेश्वर एष सर्वज्ञ एषोऽन्तर्याम्येष एव योनिः सर्वस्य प्रभवाप्ययौ हि भूतानाम् । M*a*n*d*ukya—6.

(*g*). सुषुप्तस्थानः प्राज्ञो मकारस्तृतीया मात्रा मितेरपीतेर्वा मिनोति ह वा इदं सर्वमपीतिश्च भवति य एवं वेद । M*a*n*d*ukya—11.

(*h*). यः पुनरेतं त्रिमात्रेणोमित्येतेनैवाक्षरेण परं पुरुषमभिध्यायीत स तेजसि सूर्ये सम्पन्नः । यथा पादोदरस्त्वचा विनिर्मुच्यत एवं ह वै स पाप्मना विनिर्मुक्तः स सामभिरुन्नीयते ब्रह्मलोकं स एतस्माज्जीवघनात् परात्परं पुरिशयं पुरुषमीक्षते । Prasnopanishad—V. 5.

The fourth *Pada* has no *matra*: it transcends all differentiations; it does not perceive external or internal phenomena like the first or the second; *nor both, like the transitional state between the two; nor does it, like the third, possess one unified, compact mass of knowledge; it cannot be described either as intelligent or non-intelligent, it is invisible, beyond all treatment, non-cognisable by the senses, undefinable, beyond the comprehension of the mind and the description by any words; it is to be sought after by steady faith, viz.*, that the same One Self passes through the three states: it has no trace of the visible universe which is illusory and the scene of manifold action, it is an embodiment of calmness and bliss, and is without a second. This is the Self, this is to be realised: He who knows this enters into (*i.e.*, realises) the Self by means of his own Self (*a*).

LIFE-EXPERIENCES, OR THE STUFF WE ARE MADE OF: A STORY.

It was an autumn night, dark as pitch, the rains pattering with a melancholy monody which seemed to infect the very heart of Merry Jove. Amidst this ceaseless sigh of Nature, in one obscure corner of this vast world there was to be seen a small cottage enveloped in darkness. Yet what was this outer darkness to the darkness that was gathering round the soul of its occupant, a middle-aged widowed woman who was sitting all deshabille even to the care of her inner self with her eyes anxiously bending over the figure of a small child not more than two. Yes, if that was her noticeable posture, a slight automatic movement of the right hand which at first sight was apt to pass unnoticed was also to be observed on nearer view, an incident apparently trifling but really fraught with a grim, heart-rending significance when we have made ourselves acquainted with the real secret underlying it. She was rubbing with ginger the pretty left hand of the baby laid on her lap, cold and stiff in death.

(*a*). नान्तःप्रज्ञं न बहिःप्रज्ञं नोभयतःप्रज्ञं न प्रज्ञानघनं न प्रज्ञं—
अदृष्टमव्यवहार्यमग्राह्यमलक्षणमचिन्त्यमव्यपदेश्यमेकात्मप्रत्ययसारं
प्रपञ्चोपशमं शान्तं शिवमद्वैतं चतुर्थं मन्यन्ते स आत्मा स विज्ञेयः।

Mandukyapanishad—7.

अमात्रश्चतुर्थोऽव्यवहार्यः प्रपञ्चोपशमः शिवोऽद्वैत एवमोङ्कार
आत्मैव संविशत्यात्मनात्मानं य एवं वेद य एवं वेद।

Mandukya—12.

The doctor, a few minutes ago, had come and declared the child to be dead. Well, she had learnt that when the extremities are getting cold ginger is applied. So when all doctor's arts had failed, she brought forth her remedy scarce knowing—nay, believing that it was too late. What if the breath had ceased! What if the sinews were stiff, the teeth dreadfully exposed, the eyes shooting out! She shut her eyes to all this; but led by an irresistible impulse of affectionate longing was rubbing the ginger powder mistaking the warmth of the powder to be the returning warmth of her dead child's life. The doctor's declaration had chilled her brain and heart into complete inaction. It was an awful moment for her. On the one hand, the Truth obstinately knocking for admission—on the other, Hope playing at all sorts of make-beliefs with her, and her human heart! What should it do but hug the delusion and spurn the truth lest admitting the latter might break the heart to pieces. The light in the corner was flickering restlessly making alternate light and darkness in unconscious imitation of the tragedy of conflict going on within the breast of a sentient being, who sat there apparently in a state of suspended animation. What wakened her,—and the devil that it did!—was the appearance of a few strange faces who seemed to be messengers of death to her,—and why should they not, since it was their cruel task to take the baby from the mother's arms and mingle its bones with the dust of the earth! Alas! alas! with all our desires to be loving in our deeds Nature summons us to works which seem to be cruelty personified. With words of comfort that glanced all past her they tried to extricate the dead child from the mother's arms, but she held it hard close to her bosom, herself stiff and petrified with horror. The facts of life are uncompromising, and all our tenderest sentiments must give way before them. The funeral party that had just arrived had therefore no other alternative but to wrench the child from the mother's bosom. They cruelly tore the child away from its mother's arms and, taking it in a bundle of cloth went to the place of burial with slow steps and silent.

And what about the mother? The truth that she had wilfully kept at a distance made itself felt with a crushing force. A chasm opened in her heart—a flowery vale adorned with golden hopes and desires suddenly turned into a dreadful waste—a void, a chaos, a desert. The sun that lit it was gone—gone for ever—where then the flowers should be! But no! Why should it go? Where should it go? It had been hers all along; her bosom had been its cherished home, her embraces, its warmth. They that had taken

the child away were mistaken; or, if not mistaken, there were *the gods of Heaven, who had put the life in that body had taken it away. She would pray to them and they would give back the precious life?* Why not? The gods could not be cruel to her! They were all kind and would they not listen to her prayers? She was a poor creature all whose hopes centred round her only child and Heaven must not smite him with death. The poor woman's heart throbbed with intense hope as she sat to pray and prayed, "Father, have mercy on a poor suffering soul. She cannot bear it all. She will be always good henceforth. She will everyday pray to you, Heaven. Have mercy, mercy Father!"

At this moment, lying Hope answered—'your child is not dead;' which she mistook to be the voice of Heaven. Immediately she ran after the child and got to the place of burial in no time. They were digging a pit to put the lovely form into it. It was laid under a tree which spread its benignant arms over it as if to pronounce its best blessings. The night was still dark and she could not see the face. She felt it with her hands and held one of them under its nose just to see if the breath had returned. A whiff of wind just then passed over the dead boy's face. Ay! he is breathing, muttered she and hurriedly taking it up in her arms shouted out, 'hold! hold! it is alive.' The people that had taken no notice of her started up and turning round saw the dismal spectable with horror. She hugged the child eagerly to her bosom. The cold bosom of the child gave no warmth to her own. Yet she held the child in her arms firmly and with stern resolution. They that were digging the pit came up to her and used all their arts to persuade her that there was no more life in the child. Yet there was no persuading. She would by no means deliver up the child. They brought a lamp before the child's face and what a grisly picture it shewed. She turned back in dismay and in the act her hold relaxed. The men seeing their opportunity snatched the child from her arms again and she fell down insensible. Some of them took charge of her while the others went to perform the cruel duty of burying the child away from the mother's sight for ever.

It was almost an hour after that the poor woman revived. 'Where is my child'! She said in a feeble voice. They that sat by her spoke not a word in return. She jumped up and cried: 'where is my child?' A voice said 'dead and gone,' 'Child! child! My darling! Where art thou? Come to me thy own mother, 'dear.' See how miserable is she!' Echo answered where. The vast space hollow, void and dark around her only mimicked her cry. She knelt down

before the tree under which she had seen the child laid erstwhile and with anxious opportunity prayed, 'Give me back my child, my only child, O God of the forest. Thou hast hidden her. Why he was here just now!' She prayed to the wind, to the sky, to the darkness, to the God of Heaven who seemed to be identified with the black void round her. But there was no response. She then ran about in quest of the child hither and hither till in the darkness her feet stumbled upon something hard. She felt it and found it a stone-step. She got up it and dimly saw a white masonry before her. There was a wooden door which flung open at the slightest pressure, and getting in, she found herself within the walls of a temple sacred to the Goddess *Kali*. She was in a supplicating posture again praying to the mother with all the energy of her heart. Mother! mother! thou art the mother of this universe and thou knowest what it is to lose a child! Give me back my child. My only child, my only hope in this world. Do, do give me my child.' A thousand times, with folded arms and tears in her eyes did she repeat the prayer, but the stone image moved not and now she was in a fit of passion. Rising up on her legs she caught hold of the wooden bolt of the door that rested against the wall and was going to project it with great violence against the sacred image, when a hand from behind caught hold of the weapon. She turned back and saw the face of a venerable old man. In the anxiety of her heart the bereaved mother had not noticed the many signs of habitation that lay scattered before her. There was the dim earthen lamp, for instance, which had revealed to her, her situation; there were various utensils of worship and sweet perfumes, all which to a sane mind must have indicated their real meaning. But her untuned and unstrung mind did not observe them at all. The old man we have mentioned was sleeping in a side-room when he was roused by the tremulous exclamations of the afflicted woman. He was silently marking all her doings till at this moment saw reason to interfere. Yet his looks were looks of tender love such as those she had been accustomed to in the eyes that had closed for ever just now. 'Why should you destroy my Mother here, child'? said the hoary old man. 'Why has she destroyed my child'? returned she.

'She! destroy your child? Ah! No, you are mistaken. She is all kindness, my mother.' And with that he fell on his knees and prayed, 'Thou, Mother mine, give me Thy lotus feet to dwell under. Let me be happy worshipping Thee and let all things of the earth have no attraction for me. Let not son nor wife nor any tie of the world cut off my ties with Thee. Take all that is mine, happiness, hope and

desires. Give me all that Thou pleasest,—sorrow, suffering, miseries endless. Only let me know that Thou art pleased instead.' The fervour of his appeal touched the poor woman's heart and unconsciously the molecular arrangement of her soul was changing under the magic influence of the pious old man.

'No daughter! My mother is all kind in spite of all the apparent sin of circumstances.' Why not be you as good as my mother, all kindness, all mercy?

Ay! it must be a stony mercy that which kills our children for our good. She must give me my child.

Who is not your child—Not *I*?—Not *all* the world? And why not? Why should you call only *one* child yours? There are a thousand others that are crying for a mother's care. Do be a mother to them and thy dead child will live in them again. Strange words these and strange accent it was; for even as the old man said all these she seemed to see her child's face and hear her child's voice incarnate in his!

'Help me, father,' she cried as she knelt down and folded her hands.

'Heaven have mercy on you. Here is my Mother. Pray to Her with all your heart and good will come to you. Surrender yourself to the pleasure of my Mother. She will bring you scatheless through the world's trials. Trust her and fear no storm.' The firmness with which all these words were spoken acted like magic on her afflicted soul and she believed that trusting the Deity before her may give her happiness as it had to the venerable, old man.

'Teach me to trust, venerable sire, I know not how to.'

'Do rest for this night. You are tired. We shall meet again to-morrow morning.' The whole night was one of happy dreams to the poor bereaved woman in which the prominent and constant figure was that of the grey-haired pious man who seemed to light the whole horizon with the white light of purity and heavenly peacefulness.

Anxiously was she waiting the next morning, with her mind suffused with bright hopes of Heaven and a vague luminous future which she could but dimly foresee. In right time the old man appeared, asked her to sit while he seated himself in her front. For some time no words passed between them. He was looking into her eyes with a steady, winkless gaze and a sort of mystic power unconsciously flowed into her soul. Then said the old man: 'Thy will be

mine, Father'! Let this be the motto of your life. The words took captive of her heart and she said with a smiling face, 'Amen!'

'Go back to thy house. Now and always have this great motto before your eyes, mould thy life in accordance with it.'

She made a deep bow and was soon going her way. Yet the nearer she came to her old home the old associations that clung round it returned to her mind bringing tears in her eyes. A sense of being as in a desert, namely, the solitude which was now hers, grew and grew, and the last parting relics of desires of her heart melted into tears at the thought of leaving their cherished home in her breast. She chid those tears and remembered the motto that was now to be hers.

The desolation however soon changed into a busy world, a new world of her own making indeed, but one in which the question of her own happiness or sorrow found no place. Her life was dedicated to others.

The year of her troubles was an ominous year. A terrible famine raged in the province in which she lived. What horrible shapes, thin and spectre-like, like those let loose from the nether regions moved about in the streets! What inhuman sights and occurrences, what brutalising scenes threatened to shake the very roots of humanity! and yet amidst this great upheaval of Nature there was to be seen the picture of this angelic womanhood moving about like a living image of goodness relieving the distrest, feeding the hungry, comforting the wretched, clothing the naked, suckling the motherless babe, and pouring in short the warmth of her bosom into the chilled hearts of many who were crying for a mother's care. thus maintaining the credit of those human sentiments which appeared to be but moonshine in the presence of that ill-devouring demon—Famine.

You see her light-washed face lit with an everlasting smile and where are those traces of tumultuous anguish that you saw in her erstwhile. Yea, they are buried not of sight beneath that heavenly smile which betokened perfect resignation and calm confidence in the goodness of God. What if she lost a child, she has gained many instead!

NARENDRALAL BOSE.

PRESENT-DAY REQUIREMENTS.

Owing to various causes we have noticed that of late there has been a distinctly marked movement in favour of the resuscitation of what is great and good in our ancient Sanskrit Literature and Philosophy. The contact of the East and West has been productive of one great good;—it has imparted a certain tone into the national character and has opened our eyes to the great fact that the civilisation of the West, with all its blessings, is so aggressive in its tendencies that unless it is properly handled and checked it is found sooner or later to obliterate old landmarks of thought and life, and impose upon national character much of what is admittedly mischievous and even pernicious in its effects. If a nation or a community be not a mere arbitrary aggregation of individuals, but has in it something in the nature of an organic structure, it is very necessary, indeed, that that nation or community should be properly fed and nurtured with a view to its healthy growth or development. Can it be truthfully said that modern Indian Society has been receiving that nourishment, or is it not more nearly the truth that that Society is, under certain influences from the West, disintegrating—that old bonds are loosening, and that there is less of construction and more of destruction going on in the inner life of that Society? If Indian youths are throwing off old religious superstitions, what new spiritual life have they been able to incorporate in their lives? If the old ideal of plain living and high thinking, honored poverty and higher culture has lost its hold upon us, what new ideal of vigorous activity, whether in the pursuit of the useful or the ornamental in the civilisation of our rulers has replaced the first? Is it not true that while our wants have considerably increased, we have not hitherto had strength enough to act in concert and devise means to carry out what is admittedly necessary under the circumstances? The forces of an alien civilisation, coming in the wake of foreign rule, have been ceaselessly operating in our midst, with the result that instead of being able to make the most of them in the direction of utilising them to help on our national evolution, we have simply looked on or have allowed ourselves to drift along the current. Our mental lives, our inner lives, our social relations, are undergoing a sort of dissolution; and we are either helplessly looking on or are even unconscious of the havoc that is being done. No civilisation can do or has done anybody or any community any good if it is left free in its course, unless the forces of whatever is evil, crude, or ill-adjusted in that civilisation are eliminated, and all that is helpful, beneficial, or useful

to the evolving, growing life of the given individual or community is distinctly assimilated. In the lower order of existences, evolution is more an affair of the environment, *i.e.*, external surroundings leaving its impress upon the organism. In the higher life of human being, man is the master, the controller and adjuster of the forces that exist; the human will imposes conditions which the environment must obey. It is precisely because modern Indian Society has not been hitherto able to use and organise in its favour the forces of Western civilisation that are in our midst,—it is precisely because we have not been able, as a social unit to conserve all that is great, and good and beneficent, and native in our civilisation; it is precisely because Indian Society has not hitherto been able to master, control and use existing outside forces—that there is great danger of Indian Society succumbing and decreeing its own doom of extinction. Wherever European civilisation has gone forth, old races, old customs, old life have simply disappeared. India boasts of a higher national vitality—of a higher moral and spiritual stamina, derived from the labours and institutions, (still holding their own), founded and fostered by the Rishis of old. In the interest, therefore, of national self-preservation, the national genius, or the national trend of thought,—moral, spiritual, intellectual,—national ideals, the national character have not to be ruthlessly trodden under foot or left to the mercies of an all-aggressive material civilisation from the West, but have to be conserved and made a power for good. While at the same time all that is best and brightest in Western life and thought and at the same time helpful to and not inconsistent with the ancient ideals, have to be assimilated. It is necessary, therefore, that a progressive movement in favour of old moral and spiritual ideals has to be initiated and encouraged; while also a higher intellectual and industrial movement, such as is directly traceable to the higher life of the West, has to be inaugurated. Our schools, colleges, and universities have, it seems, outlived their old functions, and a new life has to be imparted into them. A taste for higher work, for higher intellectual life along Western lines, has to be fostered and encouraged amongst our boys. A desire to compete with Western scholars in the fields of higher scientific, economic, literary or historical labours ought to be systematically encouraged both by Government and the public. While also a scheme of higher religious education along national lines, such as would necessarily import a higher tone to the *inner* lives of our young men, should be devised and carried out. The Government should in no way be asked or encouraged to depart from its traditional, and most salutary policy of preserving neutrality in the matter of religious education; but the people must combine to establish charitable religious teaching institutions, like the *chatuspathis* of old; the people must combine to found young men's Hindu unions, or Societies where the college youngmen might have opportunities of undergoing some sort of religious training under competent religious teachers or lecturers; while also our existing private educational institutions should see to it that a preliminary sort of religious instruction along with secular be imparted to their scholars.

EDITOR.

MISCELLANEOUS.

Primitive man in Tasmania.—At the Anthropological Institute in London, Prof. E. B. Tylor recently lectured upon the existing native race in Tasmania, and formulated evidence for the purpose of showing that it represented a period contemporaneous to the Stone Age, but below even that of pre-historic man in Europe, at the period of the mammoth. He stated that the natives were contemporary with the lowest available record, but they possessed the arts of house and boat building, fire-making and cookery, basket and leather work, rude tools, and weapons, combined with a mythology including star-myths and nature-spirits—were animistic, religion culminating in polytheism. Prof. Tylor considers from the results of his investigation and study of the race that the Tasmanians present a picture of man's life on earth which, although not primitive, is probably that is based on direct anthropological evidence. *Scientific American*, January 19, 1901.

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Vaccine Virus.—Variola or small-pox is said to have found its way into Europe in the seventh century, and have been almost continuously present since. It was a permanent plague, against which no one was safe. Queen Mary, of England, and Louis XV., of France, both died of the disease. So widespread and deadly were the epidemics in the first three decades of the 18th century that seventy-four out of every thousand deaths were caused by small-pox. The prevalence of the evil led English physicians to adopt the practice of inoculation with small-pox in 1721; but it was soon recognized that, although the individual thus treated usually suffered only a mild illness and escaped another attack of small-pox, the practice not only failed to reduce, but even multiplied, the sources of contagion and thus indirectly increased the number of deaths.

About 1768, a woman said in the hearing of Edward Jenner: "I cannot take that disease, for I have had cowpox." It was a belief which, although common enough at the time, was held by most medical men to be based upon an imperfect induction from the facts. But Jenner, being a man of discernment and reflection, began a series of observations, and at last of actual experiment. On May 14, 1796, he inoculated an eight-year-old boy with matter taken from a vescile in the hand of a diary-maid smitten with cowpox. So perfect was the vaccination that the boy was inoculated with small-pox on the first of the following July without taking the disease. Two years later Jenner published his famous work, "An enquiry into the causes and effects of variola vaccinœ." In the following year vaccination was introduced in the London Small-pox Hospital.

The duration of the immunity secured by vaccination varies considerably. Rarely does a single vaccination give immunity for life. Susceptiblity returns between the seventh and tenth years as a general rule. A second vaccination may or may not give immunity for the remaining period of life. But widely as the effects of vaccine inoculation may vary, it is certain that an attack of small-pox in a vaccinated person is generally milder than the unvaccinated and is rarely fatal. *Scientific American*, January 19, 1901.

THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

WHOLE NO. L. } CALCUTTA, SEPTEMBER, 1901. { No. 2. VOL. V.

ON DURGA, SIVA AND KALI IN THEIR EXOTERIC ASPECTS: A CRITICISM ON MAX-MULLER.—I.

The late Professor Max-Müller in one part of his book "Anthropological Religion" deals with the origins of the Hindu deities, Durga and Siva, and tries to establish that they are "importations from non-Brahmanic neighbours, possibly conquerors, or as adaptations of popular and vulgar deities by proselytising Brahmans;" for he holds that "neither Durga nor Siva can be looked upon as natural developments, nor even as mere conceptions of Vedic deities." In my present paper I will try to adapt myself to the standard set up by Max-Müller and look at the deities mentioned from the point of view of Max-Müller's "conceptions" or "developments" and see whether from this *exoteric* standpoint, we could not discover their origins in the Vedas. The exoteric treatment of a deity consists in treating him or her as symbolising or allegorising something in us or without us; in looking at him as a representation, not as an independent reality. In an age of scientific materialism, when most thinkers start from the conception that man is "matter" first and "intelligence" afterwards, *i.e.*, is only a derived product; that, in fact, his intelligence is not primary but is evolved through a peculiar combination of material atoms and molecules, and as such is destined to disappear with a re-arrangement of the molecules, on physical dissolution; in this age of materialism, we say, it would be the height of absurdity to claim for a deity like Durga, Siva, or Kali, the character of Intelligences, supreme or of any other order whatsoever. With most thinkers of the present age, God Himself is at best a *conception* and is tainted with the vice of anthropomorphism. When man himself is recognised in essence only as matter, or at best a develop-

ment of matter, the existence of immaterial beings, higher intelligences, or deities that are essentially spiritual, *i.e.*, higher conciousnesses, —the idea of the existence of such beings, we say, must be necessarily at a discount. When man will have begun to recognise that he is spirit first and matter afterwards, and that the spiritual element is the only element that is ever-permanent in him—that, in fact, he is the *Atma* or Self of the Hindu sages, immortal, omniscient, etc., clothed in impermanent garments which are so many impediments to his realising himself in his infinite spirituality, he would be in a position to recognise God as the Reality, (and not merely as a *conception*) not owing His existence to us. My point is that it is useless in the *present* state of our ideas, when man himself (albeit his rationality and emotions and will-power) is regarded only as a derived product of atoms, and God Himself as but the product of a product, a conception due to man,—it is useless, we say, in the present stage of our ideas, when the notion of independent, permanent intelligence in sentient human beings is hardly recognised,—to start any discussion as to whether the Hindu deities, *Durga*, *Siva* or *Kali* are intelligences, spiritual essences, independent realities, or whether they are mere conceptions. Therefore assuming, but not admitting, that they are mere conceptions or developments, we join issue with Prof. Max-Müller and seek to establish that starting even from his standpoint that the deities in question are anthropomorphic, he is in error in supposing that their origins do not lie in the Vedas, "that they are inexplicable except as importations from non-Brahmanic neighbours, possibly conquerors, or as adaptations of popular and vulgar deities by proselytising Brahmans." When the Vedic deities themselves are recognised as unrealities, not essences, intelligences, independent consciousnesses, the tracing of the deities, *Durga*, *Siva* and *Kali* to their Vedic origins would not evidently, in the eye of the foreign Orientalist, establish their claim to be recognised as true deities, *i.e.*, realities. But still to the Hindu who recognises the independent existence of spiritual essences, higher consciousnesses; who recognises in himself an "infinite spirit wantoning in endless being," and not merely "an animal having a body, every organ merely performing its natural functions," and who looks upon the Vedas as his highest authority and upon Vedic deities as *realities* and not mere subjective conceptions, *i.e.*, representations of outward realities, even an exoteric presentment of the subject such as would be implied by the tracing of the deities, *Durga*, *Siva* and *Kali* to their Vedic origins would be a clear objective gain. But let it be once more said that we are here not discussing the question, whether *Durga*,

Siva and *Kali* are realities, or intellgences; or whether they are *mere conceptions* due to man; but that, assuming, as Max-Müller does, (but not admitting) that they are such conceptions,—whether they are Vedic or non-Vedic and non-Aryan in their origin.

Mr. Max-Müller's position will be very clearly understood from the following quotation from his book "Anthropological Religion.".

"There is such a decidedly non-Vedic spirit in the conception of Durga and her consort Siva that I feel inclined to trace it to some independent source. A goddess with four arms, or ten arms, with flowing hair, riding on a lion, followed by hideous attendants, could hardly have been the natural outcome either of Rodasi, the wife of Rudra, and of the Maruts, or even of the terrible flames of Agni, Kali, and Karali. The process to which Durga and Siva owe their present character must, I believe, be explained in a different way. It was probably the same process with which Sir Alfred Lyall and others have made us acquainted as going on in India even at the present time. When some outlying half savage tribes are admitted to a certain status in the social system of the Brahmans, they are often told that their own gods are really the same as certain Brahmanic gods, so that the two coalesce and form a new incongruous mixture. Many years ago I suspected something like this in the curious process by which even in Vedic times the ancient gods, the Ribhus, had been assigned to the Rathakaras literally the chariot-makers, a not quite Brahmanic class, under a chief called Bribu. If we suppose that some half-barbarous race brought their own god and goddess with them, while settling in the Brahmanised parts of India, and that after a time they forced their way into the Brahmanical society, we could then more easily understand that the Brahmanic priests, in admitting them to certain social privileges and offering them their partial services, would at the same time have grafted their deities on some of the minor Vedic deities.

"Traces of a foreign, possibly of a Northern or North-eastern Durga, may still be discovered in some of her names, such as Haimavati, coming from the snow-mountains; Parvati, the mountaineer; Kerati, belonging to the Keratas, a race living in the mountains east of Hindustan. One of her best-known names, Chandi, explained as violent savage, belongs to an indigenous vernacular rather than to Sanskrit. Chanda and Munda, the latter possibly meant for the Munda tribes, are represented as demons conquered by the goddess, and she is said to have received from her victory over them, the name of Cha-munda; possibly Chandala, the name of one of the lowest castes, may be connected with Chanda, supposing that, like Munda, it was originally the name of a half-savage race. Even in so late a work as the Harivamsa, v. 3274, we read that Durga was worshipped by wild races, such as Sabaras, Varvaras and Pulindas. Nay, even Sarva, another name of Siva, and Sarva and Sarvani, names of Durga, may be interpreted as names of a low caste (see Sarvari, a low caste woman, a devotee of Rama).

"If then Chandi was originally the goddess of some savage mountaineers who had invaded central India, the Brahmans might easily have grafted her on Durga, an epithet of Ratri, the Night, or on Durga as a possible feminine o. Agni (Havya-vahani), who carried men across all obstacles (Durga), or on Kali or Karali, names of Agni's flames, or Rodasi, the wife of the Maruts or Rudra. This goddess is called vishita-stuka, with dishevelled locks, and Chandi also is famous for her wild hair (kesini).

"In the same way her consort, whatever his original name might have been, would, as a lord of mountaineers, have readily been identified with Rudra, the father of the

Maruts, or Storm-winds, dwelling in the mountains (giristha, Rev. viii. 94, 12, &c.) or with Agni, whether in one of his terrible, or in one of his kind or friendly, forms (siva tanuh, Satarudriya, 3). In his case, no doubt, the character of the prototypes on which he was grafted, whether Rudra or Agni, was more strongly marked, and absorbed therefore more of his native complexion, than in the case of Durga, his wife. But the nature of Siva's exploits and the savage features of his worship can hardly leave any doubt that he too was of foreign origin. It should be remembered also that Rudra and Agni, though they were identified by later Brahmanic authors, were in their origin two quite distinct concepts.

"I hold therefore that neither Durga nor Siva can be looked upon as natural developments, not even as mere conceptions, of Vedic deities. They seem inexplicable except as importations from non-Brahmanic neighbours, possibly conquerors, or as adaptations of popular and vulgar deities by proselytising Brahmans.

"But even this would not suffice to account for all the elements which went towards forming such a goddess as we see Durga to be in the Epic and Pauranic literature of India.

"If she was originally the goddess of mountaineers, and grafted on such Vedic deities as Ratri, Kali, Rodasi, Nirriti, one does not see yet how she would have become the representative of the highest divine wisdom. The North, no doubt, was often looked upon as the home of the ancient sages, and, as early as the time of the Kena-Upanishad, the knowledge of the true Brahma is embodied in a being called Uma Haimavati. She is also called Ambica, mother, Parvati, living in the mountains, and her husband Umapati is identified with Rudra (Taitt.-Ar. 18)."

Having given Prof. Max-Müller's view of the case we proceed to give ours. Let us hope that from a comparison of arguments put forth, the reader will not find it difficult to come to a very definite conclusion. We will divide our arguments under the following heads :—

PART I. THE PRIMARY STAGES.

(1) Durga as a Vedic conception.

(2) The Vedic Altar developed into Durga.

(3) Professor Max-Müller's error and the non-scientific character of his treatment of the subject and the attendant practical mischief at the hands of Christian Missionaries.

PART II. THE DEVELOPMENTAL STAGES.

(4) Development of Sati into Uma.

(5) Development of Uma into Ambica.

(6) Development of Ambica into Durga.

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(12) *Kali* as Philosophy and Love.
(13) *Kali* as a Sacrificial Deity.
(14) *Kali* as the world's grand theatre of a demonaic beginning and a godly end.

(1) Durga a Vedic Conception.

For the original conception of Durg*a*, I beg to cite 3-27-9 Rigveda, which is as follows :—

ओँ श्रिया चक्रे वरेण्यो भूतानां गर्भमादधे ।
दक्षस्य पितरं तना ॥

"The daughter of Daksha embraces Agni (the fire) that exists in everything, that protects as a father, and that is adorable for its works."

In Vedic times, the Sacrificial Altar was termed the daughter of Daksha, probably from the reason of the saint's having performed a good many sacrifices. The fact that the Sacrificial Altar contains fire, or that the daughter of Daksha embraces Agni, is the very germ of the conception that Durg*a* has for her consort *S*iva, who is none other than Agni (the Fire), the term Rudra having been applied to both. The Pauranik statement that Sati, the daughter of Daksha, was married to *S*iva may be traced in its esoteric aspect to the above Rik, being either an illustration of it, or an exposition of the inseparability of the altar from the fire, or of the means from the end.

(2) The Sacrificial Altar developed into Durga.

As to the development of the Sacrificial Altar into Durg*a*, we must remember that there was a time in the annals of ancient India, when the Rishis had to put out their sacrificial fire. They then performed no rites and made no offerings to the Fire, but they seem to have preserved the Altar, for it is said in the Vedas.

ओँ ज्योतिष्मतीमदितिं धारयत्क्षितिं स्वर्वतीमा ।

1—136—3, Rigveda.

"This Altar is all-brilliant, all-perfect and good-looking, and is the way to Heaven."

The Rishis therefore preserved the Altar, before which they sat, and were absorbed in deep meditation. Now when a revival took place, it was necessary that offerings should be made to the Fire. And the Rishis instead of kindling the fire again, placed upon the

Altar, upon the daughter of Daksha, an image of yellow colour to represent the Fire, and called it Habya-Vahani, after the name of Agni, who was *so called for his capacity for conveying the sacrificial offerings to the gods. This image is our Durga,* her ten hands representing the ten directions of the Altar. The existence of a number of minor deities with her also proves without a shadow of doubt that *Durga* is a full representation of a Vedic Sacrifice. Her Saraswati is the knowledge of the Vedas incarnate. Her Lakshmi represents the wealth needed for the performance of a Sacrifice. Kartikeya, the warrior, preserves the Sacrifice, while Ganesa begins it, his four hands representing the Hota, the Ritwik, the Purohita and the Yajamana elements of the Vedic Sacrifice.

Furthermore we have

ओँ विपाजस्य प्रोशुचना राधस्व द्विषो ।
रक्षसो अमीवाः ॥

3—15—1, Rigveda.

['You, brilliant with your lustre, destroy our enemies, destroy such Rakshasas as are free from diseases.']

Vedic mantras like the above, necessarily place the turbulent Asura, and a group of fierce animals under the subjugation of the great Goddess of Fire.

Another very striking proof of *Durga* having been the Agni of the Vedas, is that when we worship Her, we are to invoke Her first by the following hymn of the *Sama*-Veda.

ओँ अग्न आयाहि वीतये गृणानो हव्यदातये ।
नि होता सत्सि वर्हिषि ॥

"Thou, come, O Fire, for we welcome Thee to receive these oblations, be seated on the spread-out Kusa, and welcome the gods on our behalf."

(3) PROFESSOR MAX MULLER'S ERROR AND THE NON-SCIENTIFIC TREATMENT OF THE SUBJECT: ATTENDANT PRACTICAL MISCHIEF AT THE HANDS OF CHRISTIAN MISSIONARIES.

Thus, I have clearly established that *Durga* is essentially Vedic and exclusively Aryan; whereas, Max-Müller, if he had not missed or ignored the Rik which I have already quoted (3-27-9, Rigveda) would have been at once convinced of *Durga* existing in Vedic times as the Sacrificial Altar. He would *then* have been spared the necessity

of trying to find a solution of Her origin in Ratri, Rodasi, or other Vedic deities. He would *then* have not lost the opportunity of identifying Sati, the Pauranik daughter of Daksha, that was married to Siva, with the Sacrificial Altar, that is the Vedic daughter of Daksha that embraced Agni. And further he could not have failed to trace Siva to Agni. As it is, having failed to trace Durga and Siva to their proper sources, he could only devise an *a priori* explanation of the facts, thus: "If Chandi was originally the goddess of some savage mountaineers, the Brahmans *might* easily have grafted her on Durga, an epithet of Ratri." That this explanation is purely guess-work would be evident when proceeding with our arguments we establish the different stages in the process of development of the Vedic Sacrificial Altar into the final aspect of Durga. In the meantime, it is essential to note that Prof. Max-Müller himself acknowledges that his explanation of Durga's non-Aryan origin is not satisfactory, as not sufficing to account for all the elements which went to form such a goddess as we see Durga to be in the Epic and Pauranik literature of India. Says he, "If" (as he supposes) "she was originally the goddess of mountaineers and grafted on such Vedic deities as Ratri, Kali, Rodasi, Nirreti, one does not see yet how she would have become the representative of the hightest divine wisdom."

So, then, on his own admission, the explanation which he offers, being *a priori* in its nature takes account only of certain facts and leaves out others not less important. I hold, therefore, that Max-Müller's theory being admittedly incomplete and, therefore, unsatisfactory must make room for another which is complete and satisfactory. The fact of the matter is that in tracing archaic religious institutions to their origins, foreign orientalists suffer from an inalienable vice which incapacitates them from looking at them from an *historical* point of view and treating them according to strict historical methods. The vice we refer to is very well expressed in the words of Sir Henry Sumner Maine: "They carefully observed the institutions of their own age and civilisation and those of other ages and civilisations with which they had some degree of intellectual *sympathy*; but when they turned their attention to archaic states of society which exhibited much superficial distance from their own, they *uniformly ceased to observe and began guessing. The phenomena which early societies present us are not easy at first to understand; but the difficulty of grappling with them arises from their strangeness and uncouthness*) not from their number and complexity." (*Ancient Law*, pp. 119-120). Mr. Max-Müller's is one such guess-work as is distinctly

traceable to "the strangeness and uncouthness" of the particular phenomena with which he has had to deal. He is, it seems, simply frightened at the sight of "a goddess like *Durga* with four arms, or ten arms, with flowing hair, riding on a lion followed by hideous attendants" (I am quoting his own language). The uncouthness and *strangeness of the picture before him suggested to him at once the hypothesis that Durga was of non-Aryan origin, was an "importation from* non-Brahmanic neighbours, possibly conquerors, or an adaptation of popular and vulgar deities by proselytising Brahmans." And having hit upon the 'savage' theory of *Durga*, he finds many other things besides her 'savage' form to support the theory; *e.g.*, her many 'savage' names and of her connexion with a 'savage' consort, "the lord of mountaineers," "the nature of whose exploits and the savage features of whose worship could hardly leave any doubt that he too was of foreign origin." This 'savage' theory might have at least been plausible but for the fact that it could not account for "*Durga* as the representative of the Highest Divine Wisdom." While Professor Max-Muller has sought to establish the 'savage' theory of *Durga*'s origin, we have in turn sought under the leadership of that great champion of the application of historical method in the treatment of archaic institutions, Sir H. S. Maine,—to bring out the psychological conditions under which he, a modern civilised foreigner and orientalist, is compelled to propound what he calls his scientific theories which [illegible] however, at best *a priori* guesses, conjectures, suppositions, &c. But the mischiefs which such *theories* do, apart from their appearing as well-established truths and so vitiating scientific thought, go further and become, indeed, formidable when they are used as weapons in the hands of bigoted proselytising believers in a foreign religion. For such *theories* give ample scope to such believers to hurl anathemas against their heathen brethren and to wound their religious susceptibilities, however much such anathemas may find their ultimate explanation in the foreign believer's difficulty in understanding heathen ideas and institutions—"difficulty," to use the language of Sir Henry Maine, "arising from their strangeness and uncouthness" on account of the foreign believer having no "intellectual sympathy" with them. That the mischief of indulging in learned guess-work in matters relating to the religious beliefs of a devoted subject people may assume gigantic proportions would be evident from the following quotations from a pamphlet (second edition 3,000 copies) published anonymously in January, 1899, by the Christian Tract and Book Society at 23, Chowringhee, Calcutta, and appearing under the *misleading* title of "Prof. Max-Müller on Durga." The

quotations given are only illustrative, not exhaustive. Says the Christian tract-writer, "What infatuation possesses Hindu Aryans, English educated, to cling to this non-Aryan Demon? To draw the attention of a human being to her and say, 'Behold your Mother, your heavenly Mother,' would be to insult him and make him explain 'Is your servant a dog to own such a mother?' The giving of worship of Durga is worse than to take the Queen off her throne and set a scullion in her place. It is like setting the worst character in Newgate Jail in her place. For a person to pretend to come from one's native character and to carry a portrait of one's mother thence (a mother never seen by the child) and to present the portrait of a grinning ourang-outang and say 'Lo, your mother,' is not so very grossly insulting to a human being as to present to him an image of Durg*a* or K*a*l*i* and say to him 'Lo, your God, your spiritual Mother.'" After this unmeasured language of praise given to heathen brothers and subject peoples, the anonymous writer-prophet pronounces his benedictions. "The time is coming when the wolf and the lamb shall feed together and the lion shall eat straw like an ox. Surely the millenium a near at hand." Professor Max-Müller was a man of culture and devoted to the cause of truth; and notwithstanding his error in discovering the genesis of Durg*a* nowhere uses any language of outrageous invective; but he is always sympathetic, even where he is most in opposition. But the case is quite different with those Christian Missionaries who using language such as we have quoted disgrace Christianity and the name of a Christian missionary. For ecclesiastic bigotry, selfishness, and fanaticism masking themselves under the dignified title of righteous indignation and superiority could alone be held as accounting for the above language of unmeasured vilification. Bigotry and selfishness are opposed to all true culture; and the man of true culture alone is able to appreciate the fact that men and peoples and races differ constitutionally not only in primary conceptions of God, man and the universe; but that further, (and this is more important still) that holding possibly the same essential sentiments, they may through racial peculiarities or evolutionary conditions find themselves committed to particular modes of expressing, objectifying and realising the self-same sentiments. So that what the sight of the cross evokes in the breast of the true Christian is evoked by other symbols in the heart of the true-born Hindu; while also what the sight of the (to the Christian most unsightly) image of goddess, K*a*l*i*, evokes in the Hindu's breast the idea of tenderness as well as of sternness, of motherly care as well as of the most unrelenting justice (which

others miscall *savage cruelty*) may well be excited by other symbols of Christian religion. It is the barbarian, a synonym for the man who is most uncultured and; therefore, most unsympathetic, who is unable to look into the depth of things and realise the true significance of varying symbols and images used by different peoples. And one of the most essential qualifications of a teacher of a foreign religion to Indians would be to possess this breadth of culture which would save him from the clutches of the Satan in him, would save him from an overmastering sense of egotism, and superiority born of such egotism and which would not make the name of the "Prince of Peace" whom he would profess to follow and whose teaching he offers to others, stink in the nostrils of all thoughtful, cultured men.

[*To be continued.*]

KEDARNATH VIDYABINODE.

METHODS OF TRAINING OF YOUTHS IN ANCIENT INDIA.—III.

[*Continued from page 6, Vol. V.*]

In the morning, every Brahma*chari* had to leave his bed before sunrise and to bathe himself after performing the necessary acts of purification. He then had to say the morning prayers, and generating fire from logs of wood, offered oblations. These were counted as the daily morning duties of the Brahma*chari*, after performing which he went to take lessons from his Preceptor who delivered them after duly performing his morning rites such as early bath, uttering morning prayers and offering oblations to fire, etc. As Yama says ;—

सततं प्रातरुत्थाय दन्तधावनपूर्व्वकं ।
स्नात्वा हुत्वा च शिष्येभ्यः कुर्य्यादध्यापनं नरः ॥

[Translation :—The Preceptor should everyday rise early from his bed, wash his teeth and after bath and offering of oblations to the sacrificial fire take his pupils for instruction.]

The K*u*rma-Pur*ana* also says :—

आहूतोऽध्ययनं कुर्य्यादीक्षमाणो गुरोर्मुखम् ।
नित्यमुद्धृतपाणिः स्यात् साध्वाचारः सुसंयतः ॥

[Translation :—The Brahma*chari* should read when called upon by his Preceptor to do so ; while reading, he must always be looking at his Preceptor's face and lift up his right-hand uncovered ; he must also concentrate his attention with a good bearing.]

While staying with his Preceptor, the Brahmachari had another very important duty to perform, *viz.*, service to his teacher by means of his body, mind and speech. As Vyása-Samhita says:—

किङ्करः सर्व्वकारीच सर्व्वकर्म्मसु कोविदः ।
अभुक्तवति नाश्नीया दपीतवति नोपिबेत् ॥

[Translation:—The Brahmachari should serve as a slave in the house of his Preceptor and acquire proficiency in all kinds of work. He must not take his food before his Preceptor does, nor drink water if he is thirsty, nor sit down when he is standing, nor sleep before he sleeps.]

A saying of Visvamitra preserved by Parasaramadhava thus runs:—

सद्भार्य्या पुत्रयोश्चैव वृद्धानां धर्म्मशालिनाम्
शुश्रूषा सर्व्वदा कार्य्या प्रणामादिभिरेवच ।

[Translation:—The Brahmachari shall always render manual service to the wife and the sons of his Preceptor and also to the aged elders engaged in religious practices and also by doing obeisance, etc., to them.]

As to the number of years a Brahmachari should stay with his Preceptor and observe these strict rules of discipline the Yama-Samhita says:—

वसेद्द्वादशवर्षाणि चतुर्व्विंशतिमेववा
षट्त्रिंशतं वा वर्षाणि प्रतिवेदं व्रतञ्चरेत् ॥

[Translation:—If he reads only one Veda the Brahmachari must stay at his Preceptor's for twelve years duly performing the necessary duties; if he reads two Vedas, he must stay for twenty-four years; and if he reads the three Vedas, he must stay for thirty-six years.]

All students of the three castes had to observe, during the time they spent at their preceptors, the above-mentioned rules and finish the study of the Vedas; for without obeying these rules no man could live honourably in the society of those days, however much he behaved himself well in other respects. As Manu says:—

योऽनधीत्य द्विजो वेदानन्यत्र कुरुते श्रमम्
स जीवन्नेव शूद्रत्व माशु गच्छति सान्वयः ।

[Translation:—That man of the twice-born class who, without reading the Vedas, labours in other ways reaches the level of a *Sudra* with his sons even in this life.]

All this makes it evident that in the times we are speaking of it was an imperative duty of all the twice-born classes to spend the first part of their lives in the study of the Vedas at their preceptors, observing for a long time the strict rules of religious discipline or ब्रह्मचर्य।

Before taking upon his young shoulders the heavy responsibilities of the householder's life every son of the twice-born class, through the instruction he received under strictest discipline, acquired sufficient wisdom to ascertain what was good in this life or in the next.

But there were two classes of Brahmacharis as above described. These were: (1) The उपकुर्व्वाण lit., a bachelor Brahmana *statu pupillari* who intends to become a householder in future. (2) The नैष्ठिक, lit., a perpetual religious student who continues with his religious preceptor after the prescribed period.

These last through a long study of the Vedas acquired such a thirst for knowledge that they would abandon their intention of entering upon a householder's life and spend their days in their preceptor's families till death. These renounced all the enjoyments of the world and consecrating their lives to the service of their Teacher made the acquiring of knowledge as their life's aim and end. About these Brahmacharis, Manu says:—

यदि त्वात्यन्तिकीवासो रोचयेतास्य गुरोः कुले
युक्तः परिचरेदेन माशरीरविमोक्षणात् ।

[Translation:—If the Brahmachari feels a strong yearning for living with his Preceptor, he may with his senses under perfect control do so till death.]

Manu also says:—

आचार्य्ये तु खलुप्रेते गुरुपुत्रे गुणान्विते ।
गुरुदारे सपिण्डे वा गुरुवद्वृत्तिमाचरेत ॥
एषु त्वविद्यमानेष स्थानासन विहारवान् ।
प्रयुञ्जानोऽग्नि शुश्रूषां साधयेद्देहमात्मनः ॥

[Translation:—On the death of the preceptor the Brahmachari should serve his worthy son or wife or any other relative of the deceased and if none of these be alive he may then live as he likes and await the time of his death with a life of perfect self-restraint and devotion to the god of fire.]

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ANCIENT HISTORY OF MAGADHA.

Introduction.

The modern province of Behar was in ancient days celebrated under the name of Magadha. Some say that the country of Kikata mentioned in the Rigveda is to be identified with Magadha of the classical writers. From a study of the old records of India we find that Girivraja was the ancient capital of Magadha. Afterwards Rajagriha and Pataliputra became the seats of government of the country. Pataliputra was otherwise known by the names of Kusumapura and Pushpapura, and has since the advent of the Mahomedan been famous under the name of Patna.

Pre-Buddhistic age ; Girivraja in the Ramayana.

In the Ramayana we find that in the time of Valmiki, the capital city of Magadha was Girivraja founded by King Vasus son of Kusa, of the Lunar race. The city was surrounded by five hills, and a lovely rill called Sumāgadhi flowed through it. The following verses referring to Magadha are extracted from the Ramayana, Book I, Chap. XXIV :—

ब्रह्मयोनिर्महानासीत् कुशो नाम महातपाः ।
अक्लिष्टव्रतधर्मज्ञः सज्जनप्रतिपूजकः ॥ १ ॥
स महात्मा कुलीनायां युक्तायां सुमहाबलान् ।
वैदर्भ्यां जनयामास चतुरः सदृशान् सुतान् ॥
कुशाम्बं कुशनाभञ्च अमूर्त्तरजसं वसुम् ॥ २ ॥
कुशाम्बस्तु महातेजाः कौशाम्बीमकरोत् पुरीम् ।
कुशनाभस्तु धर्म्मात्मा पुरं चक्रे महोदयम् ॥ ५ ॥
अमूर्त्तरजसो नाम धर्म्मारण्यं महामतिः ।
चक्रे पुरवरं राजा वसुर्नाम गिरिव्रजम् ॥ ६ ॥
एषा वसुमती नाम वसोस्तस्य महात्मनः ।
एते शैलवराः पञ्च प्रकाशन्ते समन्ततः ॥ ७ ॥
सुमागधी नदी रम्या मगधान् विश्रुता ययौ ।
पञ्चानां शैलमुख्यानां मध्ये मालेव शोभते ॥ ८ ॥

(रामायण, आदिकाण्ड, अः २४)।

Pre-Buddhistic age, Girivraja in the Mahabharata.

In the Mahabharata it is stated that Krishna, Arjuna and Bheema after having crossed the Ganges and the Sona proceeded to Magadha in the east. In the Mahabharata age too, Girivraja was the capital city of

Magadha. The city was covered over with forests of fragrant *lodhra* trees and was protected all around by the five hills which were called Vaihāra, Varaha, Vrishabha, Rishigiri and Chaityaka. It is added that Vrihadratha, King of Magadha, married two twin daughters of the King of Kāsi (Benares) and that Jarasandha, who was one of the most powerful monarchs of India, was son of Vrihadratha. Sahadeva was installed in the kingdom of Magadha in place of his father Jarasandha who was killed in a wrestling match with Bheema. The following lines referring to Magadha are extracted from the Mahabharata :—

अतीत्य गङ्गां शोणञ्च त्रयस्ते प्राङ्मुखास्तदा ।
कुशचीरच्छदा जग्मुर्मागधं क्षेत्रमच्युताः ॥ २९ ॥

(सभापर्व्व, २०श अध्याय) ।

एषः पार्थ महान्भाति पशुमान् नित्यमम्बुमान् ।
निरामयः सुवेश्माढ्यो निवेशो मागधः शुभः ॥ १ ॥
वैहारो विपुलः शैलो वराहो वृषभस्तथा ।
तथा ऋषिगिरिस्तात शुभाश्चैत्यकपञ्चमाः ॥ २ ॥
एते पञ्चमहाशृङ्गाः पर्व्वताः शीतलद्रुमाः ।
रक्षन्तीवाभिसंहत्य संहताङ्गा गिरिव्रजम् ॥ ३ ॥
पुष्पवेष्टितशाखाग्रै गन्धवद्भिर्मनोरमैः ।
निगूढा इव लोध्राणां वनैः कामिजनप्रियैः ॥ ४ ॥

(सभापर्व्व, अः २१) ।

अक्षौहिणीनां तिसृणामासीत् समरदर्पितः ।
राजा बृहद्रथो नाम मगधाधिपतिर्बली ॥ १३ ॥
स काशिराजस्य सुते यमजे भरतर्षभ ।
उपयेमे महावीर्य्यो रूपद्रविणसंयुते ॥ १७ ॥

(सभापर्व्व, अः १७) ।

अभिषिच्य जरासन्धं मगधाधिपतिस्तदा ।
बृहद्रथो नरपतिः परां निर्वृतिमाययौ ॥ १७ ॥

(सभापर्व्व, अः १९) ।

जरासन्धात्मजश्चैव सहदेवो महामनाः ।
निर्य्ययौ सजनामात्यः पुरस्कृत्य पुरोहितम् ॥ ३९ ॥
सनीचैः प्रश्रितो भूत्वा बहुरत्नपुरोगमः ।
सहदेवो नृणां देवं वासुदेवमुपस्थितः ॥ ४० ॥

(सभापर्व्व, अः २४) ।

Buddhistic period ; Raja-griha.

It is found by calculation that the city of Girivraja was founded by Vasu about 2100 years before the birth of Christ, and that Jarasandha died about 1426 B. C. The city of Girivraja was in ancient days also known unnder the names of Kushagarpura and Rajagriha (old). There is a tradition to the effect that the King Srenika, better known as Bimbisara, built in the 6th century B. C., a new town called Rājagriha to the north of the old town of Girivraja. The new town of Rajagriha is placed by the Chinese piligrim Fa-hian at two-thirds of a mile to the north of the old town. Referring to the five hills mentioned above, the famous Chinese pilgrim states that they formed a girdle round Rājagriha and stood as walls of the town. These five hills are at present called respectively Baibhara-giri, Vipulagiri, Ratnagiri, Udayagiri and Sona-giri. There is still a ruined fortress called Rajgiri at the spot where the (new) town of Rajagriha formerly stood. In Hwen-thsang's time (A. D. 629-645) the outer walls of Rajagriha had already become ruinous but the inner walls were still standing.

Buddhistic period ; Pataliputra.

The seat of Magadha government was in the 5th century B. C., removed to Pataliputra, otherwise known as Kusumapura or Pushpapura.

According to the Vayupurana this town was founded by King Udayasva, grandson of Ajatasatru. In the Mahavamsa, however, we find that Udaya or Udayasva was son of Ajatasatru. In the Mahaparinibbanasutta it is stated that Ajatasatru was engaged in building a fort at Pataligrama (village of Patali) as a check upon the Vrijis or Wajjians. At that time, in 543 B. C., Buddha predicted that Pataligrama would afterwards be celebrated under the name of Pataliputra, but that it would meet with destruction from three causes: (1) fire, (2) water, and (3) family dissensions. From this fact we may conclude that the building of the city of Pataliputra was begun in the reign of Ajatasatru and was completed in the time of his son, Udaya, who reigned in Magadha, 519 B. C.—503 B. C. The city of Pataliputra must therefore have been founded about 503 B. C.

The following passages regarding Pataliputra are extracted from the Mahaparinibbanasutta, Chap. I :—

अद्दसा खो भगवा दिब्बेन चक्खुना विसुद्धेन अतिक्कन्तमानुसकेन ता देवतायो सहस्ससहस्सेव पाटलिगामे वत्थूनि परिग्गण्हन्तियो। अथ खो भगवा रत्तिया पच्चूससमयं पच्चुट्ठाय आयस्मन्तम् आनन्दम् आमन्तेसि। कोनु खो आनन्द पाटलिगामे नगरं मापेतीति। सुनीधवस्सकारा भन्ते मगधमहामत्ता पाटलिगामे नगरं मापेन्ति वज्जीनं पटिबाहायाति। सेय्यथापि आनन्द देवेहि तावतिंसेहि सद्धिं मन्तेत्वा एवम् एव खो आनन्द सुनीधवस्सकारा मगध-

महामत्ता पाटलिगामे नगरं मापेन्ति वज्जीनं पटिबाहाय।………यावता आनन्द अरियं आयतनं यावता वणिप्पथो इदं अग्गनगरं भविस्सति पाटलि-पुत्तं पुटभेदनम्। पाटलिपुत्तस्स खो आनन्द तयो अन्तराया भविस्सन्ति, अग्गितो वा उदकतो वा मिथुभेदा वा’ति।

(महापरिनिब्बानसुत्तम्, पठमकभाणवारम्)।

In the 4th year of his accession to the throne, Asoka caused his own inauguration to be solemnised in the city of Pataliputra. In the Mahavamsa, Chap. V., it is stated that on hearing that Bindusara was on his death-bed, Asoka left the kingdom of Ujjain which had been bestowed on him by his father and proceeded to Pushpapura or Pataliputra.

This name (Pataliputra) the Greeks slightly altered to Palibothra, on the authority of Megasthenes, whose account is preserved by Arrian. Megasthenes states that Pataliputra stood at the confluence of the rivers Ganges and Hiranyavati (Sona). According to this account the capital of Magadha in the time of Seleukos Nikator, about 305 B. C., was $25\frac{1}{4}$ miles in circuit.

Mahomedan period : Patna.

The ancient city of Pataliputra has since the advent of the Mahomedan, been designated as Patna, and the country of Magadha has been known under the name of Behar. The country has been so named on account of there being a *vihara* there. The Chinese pilgrim Hwenthsang (629-645 A. D.) speaks of a hill on which stood a large *vihāra* of Buddha Avalokitesvara. The site of this *vihara* of Avalokitesvara has been identified by Cunningham with the modern province of Vehara.

Celebrity of Magadha.

As Magadha was the scene of Buddha's early career as a religious reformer, it possesses a greater number of holy places connected with Buddhism than any other province of India. The chief places are Buddha-gaya, Kukkutapada, Rajagriha, Kushagarpura, Nalanda, Indrasilaguha, and Kapotika monastery. In Buddha-gaya, Sakyasimha attained to Buddhaship; in Kukkutapada he often delivered sermons to his disciples; and in Rajagriha he converted the King Bimbisara to Buddhism. Nalanda was famous for its Buddhist university and as being the birth-place of Sariputra, the chief disciple of Buddha.

The Thibetan authors describe Magadha as literally signifying the land of noblemen. Some authors have indentified Magadha with the whole of India. The Buddhists of Burmah and Chittagong are said to have emigrated from Magadha and to have therefore been designated as Mags.

The Hindu writers like Kalidas, Dandi, Visakhadatta and Vishnusaima have given glowing accounts of Pataliputra, Pushpapura or Kusumapura. In the Raghuvamsam of Kalidasa, we find that to the King of Magadha was

allotted the first seat in point of rank in the Svayamvara ceremony held in connexion with the marriage of Indumati. Kalidasa has compared the King of Magadha with the moon, while the Kings of Ujjain, etc., have been compared with the stars. The following verses extracted from the Raghuvamsam show that Magadha was the first power in India in the days of Kalidasa :—

ततो नृपाणां श्रुतवृत्तवंशा
पुंवत् प्रगल्भा प्रतिहाररक्षी ।
प्राक् सन्निकर्षं मगधेश्वरस्य
नीत्वा कुमारीमवदत् सुनन्दा ॥ २० ॥
असौ शरण्यः शरणोन्मुखानाम्
अगाधसत्त्वो मगधप्रतिष्ठः ।
राजा प्रजारञ्जन लब्धवर्णः
परन्तपो नाम यथार्थनामा ॥ २१ ॥
कामं नृपाः सन्तु सहस्रशोऽन्ये
राजन्वतीमाहुरनेन भूमिम् ।
नक्षत्रताराग्रहसङ्कुलापि
ज्योतिमती चन्द्रमसैव रात्रिः ॥ २२ ॥
क्रियाप्रबन्धादयमध्वराणाम्
अजस्रमाहूतसहस्रनेत्रः ।
शच्याश्चिरं पाण्डुकपोललम्बान्
मन्दारशून्यानलकांश्चकार ॥ २३ ॥
अनेन चेदिच्छसि गृह्यमाणं
पाणिं वरेण्येन कुरु प्रवेशे ।
प्रासादवातायनसंश्रितानां
नेत्रोत्सवं पुष्पपुराङ्गनानाम् ॥ २८ ॥

(रघुवंशम्, सर्गः ६) ॥

Vasu, the first King of Magadha, about B. C. 2100.

It is very difficult to ascertain the age of Vasu who founded Girivraja. In the Vishnupurana we find that he was grand-uncle of Visvamitra and great-great-grand-uncle of Parasurama. Among the kings who ruled over Girivraja we meet with the celebrated names of Brihadratha and Jarasandha, but nothing has been known of the rulers who intervened Vasu and Brihadratha. According to the Vishnupurana, Vasu and Jara-

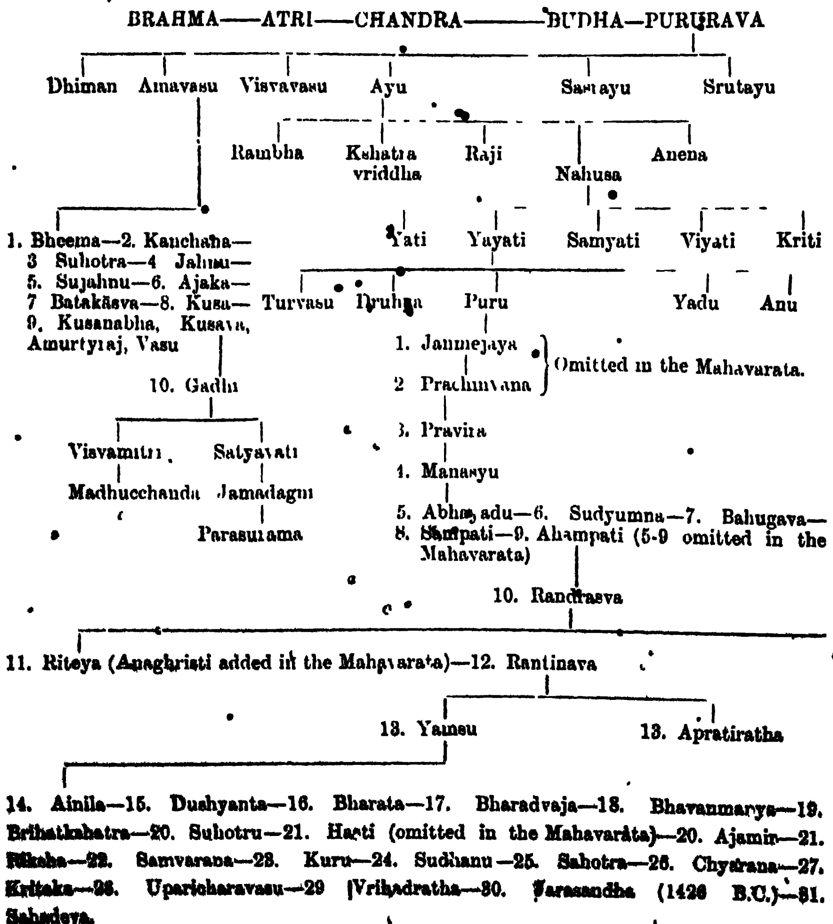
sandha both belonged to the lunar race. *Vide* the genealogical tree given in Appendix A.*

The genealogical table shows that Vasu and Jarasandha were respectively in collateral lines the 11th and 37th in descent from Pururava. Thus there is altogether a distance of 26 generations between Vasu and Jarasandha. Supposing each generation to have outlived the other on an average for 25 years, these 26 generations must have occupied about 650 years. Western scholars maintain on various grounds that Jarasandha, who took a prominent part in the great war of Kurukshetra, died in 1426 B. C. So, adding 650 years to 1426 we find that Vasu who founded Girivraja must have lived about 2076 B. C.

***Appendix A.**

[The Vishnupurana, Bk. IV., Chaps. VI., VII., VIII., X., XIX.]

N.B.—*The hyphens whether vertical or horizontal connect the father and son (or lineal descendants).*



Vrihadratha and Jarasandha.

In the Mahabharata, Vrihadratha is described to have been a very war-like, powerful and proud king. He possessed three *akshauhini* of soldiers and married the graceful twin daughters of the King of Kasi (Benares). In his old age, he installed Jarasandha in the kingdom of Magadha.

Exhaustive accounts of Jarasandha are to be found in all the Puranas, Mahabharata, etc. Jarasandha was born in two parts. A female demon named Jara having joined the two parts, the united whole became distiguished under the name of Jarasandha. He held his government in Girivraja, and conquered and imprisoned almost all the rulers of the world. It has already been stated that on the death of Jarasandha his son Sahadeva was made King of Magadha by Krishna. A table containing the names of kings who succeeded Sahadeva will be found in **Appendix B.***

***Appendix B.**

[The Vishnupurana, Bk. IV., Chap. XXIII.]

Varhadratha Dynasty.

Twenty-four Kings :—

1. Vrihadratha (lived 1520 B.C.)—2. Jarasandha (d. 1426 B.C.)—3. Sahadeva—4. Somapi—5. Srutavan—6. Ayutayus—7. Niramitra—8. Sukshatra—9. Brihatkarma—10. Senajit—11. Srutanjaya—12. Vipra—13. Suchinama—14. Kshemya—15. Suvrata—16. Dharma—17. Susrama—18. Dridhasena—19. Sumati—20. Subala—21. Suniti—22. Satyajit—23. Visyajit—24. Ripunjaya (920 B.C.)

Note 1. Sunika, the Prime Minister of Ripunjaya, killed his master. Pradyota, son of Sunka, was installed in the kingdom of Magadha.

Note 2. Pradyota Dynasty :—1. Pradyota (920 B.C.)—2. Palaka—3. Visakhayupa—4. Janaka—5. Nandivardhana. These five kings reigned for 138 years.

Note 3. Sisunaga Dynasty :—1. Sisunaga (782 B.C.)—2. Kakavarna—3. Kshemadharma—4. Kshatranya—5. Bidmisara—6. Ajatasatru—7. Durbhaka—9. Udayasva—9. Nandivardhana—10. Mahanandi. *These ten kings reigned for 362 years.*

Note 4. Nanda Dynasty :—Mahapadma (420 B.C.) and his eight sons. These reigned for 100 years.

Note 5.—A Brahman named Chanakya destroyed the last Nanda King and enthroned Chandra Gupta in Magadha.

Maurya Dynasty :—1. Chandra Gupta (320-288 B.C.)—2. Bindusara—3. Asoka Vardhana—4. Suyasah—5. Dasaratha—6. Bangata—7. Salisuka—8. Somasarma—9. Satadhanva—10. Vrihadratta. These ten kings reigned for 137 years.

Note 6. The General Pushpamitra who killed his master Vrihadratha became King of Magadha. He belonged to the Sunga race.

Sunga Dynasty :—1. Pushpamitra (183 B.C.)—2. Agnimitra—3. Suyyestha—4. Vasumitra—5. Ardruka—6. Pulindaka—7. Ghosavasu—8. Vajrumitra—9. Bhagavata—10. Devabhuti. *These ten Kings reigned for 112 years.*

Age of the kings who succeeded Jarasandha

It is by no means an easy task to determine the age of the kings who succeeded Jarasandha. Alexander the Great who invaded India in 327 B. C. met Chandragupta or Sanderkotus who had taken shelter in the camp of the Greek conqueror. A Brahman politician named Chanakya, to gratify his implacable hatred of the Nanda dynasty installed Chandragupta in the kingdom of Magadha. According to Greek accounts, he seemed to have reigned for 32 years extending up to 288 B. C. Chandragupta having ascended the throne in 320 B. C. and the nine kings of the Nanda dynasty having, on the authority of the Vishnupurana, ruled for 100 years, the first Nanda king must have commenced his reign in 420 B. C. As the rule of the Sisunaga dynasty lasted for 362 years, the first king of the line must have begun his reign in 782 B. C. In the same way, by adding a period of 138 years allotted to the rule of the Pradyota dynasty, we find that the first Pradyota king ascended the throne of Magadha in 920 B. C. It is stated in the Vishnupurana that the Vrihadratha dynasty which preceded the Pradyota kings reigned for a thousand years. Indian writers have often used the word "thousand" to signify an indefinite number, and if we suppose that the 24 kings of the Vrihadratha line ruled altogether for 600 years we come to the conclusion that Vrihadratha began to exercise sovereignty in Magadha in 1520 B. C. The age of Vrihadratha thus determined by me tallies pretty well with the date of Jarasandha's death ascertained by Western scholars.

The age of the kings who succeeded Chandragupta may in the same way be approximately determined. The Maurya dynasty of which the first king was Chandragupta, and which lasted altogether for 137 years, must have ended in 183 B. C. The sovereignty of the Sunga race lasted for 112 years and terminated in 71 B. C. The Kanva dynasty which succeeded reigned up to 25 B. C. The kings of the Andhra dynasty ruled for 456 years and their reign ended in 431 A. D. On the downfall of the Andhra kings, the Sakas, Yavanas, Tukharas, Bahlikas, and others rose in power. As it is not known in what parts of India the kings of the race of Saka, Yavana, etc., ruled, I have not included them in the list of the rulers of Magadha. In fact, I even doubt whether the Andhra dynasty ever ruled in Magadha. The Vishnupurana states that Sivaskandha Varma was

Note 7. Kanva Dynasty:—1. Devabhuti (71 B.C.)—2. Bhumimitra—3. Narayana—4. Susarma. *These four kings reigned for 45 years.*

Note 9. Andhra Dynasty:—1. Sipraka (25 B.C.)—2. Krishna—3. Sri Santakarni—4. Purnotsanga—5. Satukarni—6. Lambodara—7. Dvivilaka—8. Meghasvati—9. Padhuman—10. Aristakarma—11. Hala—12. Pattalaka—13. Pravillasene—14. Sundara-satakarni—15. Chakorasatakarni—16. Sivasvati—17. Gotamiputra—18. Puliman—19. Satakarni sivasri—20. Sivaskandha—21. Yajnasri—22. Vijaya—23. Chandra sri—24. Pulomachi (431 A.D.) *These Andhra Slave Kings reigned for 456 years.*

the 20th king of the Andhra dynasty. In the Mayidabolu plates of Sivaskandha Varma we find that the king granted two Brahmans a village named Viripara which belonged to Andhra patha, *i.e.*, the Telugu country. Dr. E. Hultzsch maintains on paleographic grounds that the inscription was in existence long before the 8th century A. D. On the authority of the Vishnupurana, however, we have found that SivaskandhaVarma lived in the 5th century A. D.*

Accounts found in the Mahavamsa.

In the Mahavamsa, the celebrated Pali history of Ceylon, we find that Buddha and Bimbisara were contemporaries. The names of the kings of Magadha mentioned in the Mahavamsa are inserted here in chronological order:—

[MAHAVAMSA, CHAPS. II, IV, V.]

	King	Date
Parricidal kings.	Bimbisara was installed in	... 603 B. C.
	Ajatasatru ...	... 551 B. C.
	Udayi-bhadra ...	... 519 B. C.
	Anuruddhaka, Munda ...	... 503 B. C.
	Nagadasaka ...	... 495 B. C.
	Sisunaga ...	... 471 B. C.
	Kalasoka ...	... 453 B. C.
	Ten sons of Kalasoka	. 425 B. C.
	Nine Nandas ...	... 403 B. C.
Maurya kings.	Chandragupta ...	... 381 B. C.
	Bindusara ...	... 347 B. C.
	Asoka ...	... 319 B. C.

Bimbisara was born in 618 B. C., became a convert to Buddhism in 588 B. C., and was killed by his son Ajatasatru in 551 B. C. In the Mahaparinibbanasutta it is stated that Ajatasatru conquered the Vrijis of Vaisali, and drove them out of India. Expelled from India, the Vrijis are said to have founded the kingdoms of Thibet, Ladaka, Nepal, Mongolia, etc. In 543 B. C. Buddha entered Nirvana, and in the same year in the rainy season, the first Buddhist Council consisting of 500 priests was held in Rajagriha by the side of the Vaibhara mountain.

Ajatasatru was killed by his son Udayibhadra who succeeded to the throne of Magadha. Anuruddhaka, Munda, and Nagadasaka having each of

* *Vide* Epigraphia Indica, edited by Dr. E. Hultzsch, April, 1900.

them in his turn put his father to death, the people deposed the last king and installed in the sovereignty the eminently wise minister bearing the historically distinguished appellation of Sisunaga. He reigned for 18 years. His son, Kalasoka, reigned for 28 years. In the reign of Kalasoka in 443 B. C. the second Buddhist Council was held in Vaisali. On Kalasoka's death the Nanda dynasty ruled in Magadha. It has already been stated that the Brahman Chanakya having put Dhanananda to death made Chandragupta sovereign over the whole of Jambudvipa. Bindusara succeeded Chandragupta. At the death of Bindusara, Asoka was made king. Asoka became converted to Buddhism and spread that religion throughout the length and breadth of India. He also sent preachers outside India. Thus, Sthavira Maharakshita was sent to Yona-desa (Greeko-Bactria), Madhyama to Himavat, Sona and Uttara to Suvarnabhumi (Burmah) and the king's beloved son Mahendra to Lanka (Ceylon). When Mahendra accompanied by some priests reached Ceylon, Tissa, the king of the country asked him: "In Jambudvipa are there other priests like unto these?" Mahendra replied: "Jambudvipa itself glitters with yellow robes." In fact, in the reign of Asoka, the religion of Buddha spread over most parts of Asia. The third Buddhist Council was held in Pataliputra in the same reign. The names of kings who succeeded Asoka have not been mentioned in the Mahavamsa.

In the well-known Buddhist Sanskrit work called Divyavadana, the kings of Magadha are named as follow:—

[DIVYAVADANA XXVI, XXVII, XXVIII, XXIX.]

Accounts found in the Divyavadana.

Bimbisara.
|
Ajatasatru.
|
Udayibhadra.
|
Munda.
|
Kakavarni.
|
Sahali.
|
Tulakuchi.
|
Mahamandala.
|
Prasenajit.
|
Nanda.
|
Bindusara.
|

Susima. — Asoka. — Vigatasoka.

The author of the Divyavadana states that Bindusara had three sons—(1) Susima, (2) Asoka and (3) Vigatasoka. Susima was born in the womb of a Kshatriya wife, while Asoka in that of a Brahman woman who had served the king in the capacity of a female barber. The people of Takshila having risen against Bindusara, he sent Asoka with a large number of soldiers. The people submitted to Asoka who was raised to the throne of Magadha on the death of Bindusara. Radhagupta was the prime minister of Asoka, and Upagupta was his spiritual guide. The accounts of the Maurya kings who succeeded Asoka are to be found in the 27th, 28th and 29th chapters of the Divyavadana. At the end of Chap. XXIX, it is stated that a Yaksha, named Krimisha, resident of Damshtra, killed Pushyamitra. The Maurya dynasty ended at the death of Pushyamitra.

SATISCHANDRA ACHARYYA, VIDYABHUSANA, M. A.

EDUCATIONAL VALUE OF THE PHYSICAL SCIENCES FROM A MORAL POINT OF VIEW.—I.

(BY MAHENDRALAL SIRKAR, M.D., D.L., C.I.E.)

It may be questioned, in the very beginning, if the physical sciences can have any possible value in relation to the moral conduct of persons who are engaged in their study. The branches of knowledge which go by the name of the physical sciences, are generally supposed to be concerned with purely physical, as contra-distinguished from psychical or mental, phenomena; and hence it is thought to be inconceivable that they can have any bearing at all on the latter. And unless they have any such bearing, it is inconceivable that they can have any influence whatever on moral character.

Without entering into the question of the ultimate nature of matter which constitutes the physical world, and of the nature, of mind which constitutes the spiritual world, it requires no profound philosophy to tell that matter and mind are bound up together, *so far at least as our present existence is concerned*, in indissoluble ties. It is mind which studies the phenomena of matter and their laws, and the operations of the mind can only be carried on through the agency of a material organization.

A study of the physical world, therefore, must necessarily exert a profound influence upon the mind which pursues that study. Volumes might be written, volumes have been written, on this vast and alluring subject. It is impossible, in the course of a magazine article, to give even a bare outline of it. It will be my endeavour to place

before the reader a few points which cannot fail to strike even the most superficial observer.

It is hardly necessary to premise, *in limine*, that when we speak of the educational value of the physical sciences from a moral point of view, we presuppose the existence of a moral nature. If there were in existence beings possessed of the intellect alone, and devoid altogether of the emotions, such beings could never possess a moral nature, and could not therefore possibly have a moral character. To such beings a knowledge of moral laws would be an impossibility, and *à fortiori* no amount of contemplation of the physical world could create or develope in them a moral nature. For nothing could have any influence on that which is non-existent. The development and elevation of a moral nature already existing is possible, and does take place, as we shall show, under favourable circumstances.

The physical sciences embrace a vast, or rather, an illimitable field. This is no other than the whole material universe. But infinite as the field may be, the study of it is capable of simplification, and has been simplified. And this simplicity, as we shall see, is of deep significance. The study of the objects under his immediate control in the tiny world he inhabits has enabled man to extend his study of the worlds that people the immensity of space, and he finds to his utter amazement that all these worlds own a most intimate kinship with each other.

The laws of motion which govern masses of matter on earth, are those which govern the larger masses of matter which constitute planets and suns and systems, which are performing their allotted revolutions in the heavens. Thus, Mechanics has proved itself to be a science of the widest generality, embracing all matter within its scope and all visible movements among particles of matter, large and small.

Man could not prosecute his studies of matter long before coming to the conviction that there were other kinds of action of matter upon matter than at sensible distances, that there were actions at insensible distances when the particles come in what is ordinarily understood as contact, and that these actions are peculiar and seem to be essentially different from actions at sensible distances, inasmuch as the actions at insensible distances seem to change the nature of the matters that thus come in contact. Here we have the origin of the science which deals with these invisible actions resulting in marked visible changes. Chemistry is the name that has been given

to it, and it deals with what have been called chemical affinities by virtue of which different kinds of matter enter into more or less energetic union with each other, so as to form peculiar compounds. The study of these affinities is necessarily intricate and complicated in proportion to the number of these affinities.

The next division of physical science has its origin in the study of living beings. In addition to phenomena which are of a mechanical and of a chemical nature, living beings present phenomena which are unique and peculiar to themselves, unlike any that may come under the domain of mechanics and chemistry. The complexity of their study is far greater than that of chemical affinities, and the complexity and with it the difficulties increase at every step up the scale of organization and life Biology is the name given to this division of physical science. In biology, beyond a certain stage, we have the contact of matter and mind,—indeed, the close dependence of the one upon the other. In biology, therefore, the simultaneous study of matter and mind is forced upon the inquirer.

Thus, illimitable as is the universe, the study of it is resolvable into the three principal divisions just mentioned.* Each division, however, has to be sub-divided for profitable study, and with each advance of knowledge the branches of physical science have become multiplied, and the number has become so great as to be beyond the grasp of a single mind. Hence it is that we find that it is only subordinate branches of physical science that are singly made the subjects of special study by scientists. This is an advantage so far as the advancement of the special branch is concerned, but a disadvantage so far as the specialist is concerned, inasmuch as his mental horizon becomes necessarily reduced to a very narrow circle, and, unless widened by general culture, he will naturally attach undue importance to his own conclusions, and endeavour to apply them to the explanation of phenomena outside of his own field of observation; in other words, he will become subject to fancies and prejudices begotten of limited study, which Bacon has figuratively, though very significantly, called the "idols of the den."

* It may be objected to this sort of division or classification of the physical sciences that it excludes the study of heat, of light, of electricity and of magnetism. Now each of these, heat, light, electricity, magnetism, has been proved to be a mode of molecular motion, convertible into each other, and capable of being produced by, and of influencing, chemical affinity. The study of them, therefore, does legitimately come under the second division mentioned above, which may have the more appropriate and comprehensive designation of molecular physics.

In the present day when the interdependence of the various branches of science is being more and more felt and observed, and when, consequently, in order to successfully cultivate any one branch, a general acquaintance with other branches, at least with those which are immediately cognate, has become an imperative necessity, the idols of the den have become much less numerous and their influence less injurious than formerly. But owing to the finite nature of the mind they cannot disappear altogether, and their presence and their perverting tendencies may be observed even in the case of the greatest students of nature.

By virtue of the moral nature with which we are endowed we have certain duties imposed upon us, and these are resolvable into duties to ourselves, duties to our neighbours, and duties to our Maker.

The primary duty that concerns ourselves is the duty of self-preservation. A cognate duty is that of preservation of the race. Both these are regulated by the strongest instincts which we possess in common with the lower animals.

Our duties to our neighbours are also based upon certain instincts and higher emotions and sentiments, and are of a very varied character involving all our varied relations, domestic, social, civic, national, international, and with these I should include our relations with the inferior animals.

Our duty to the Author of our being is of the most solemn and sacred character, and is based upon the highest attributes of mind with which we are endowed.

The ways by which we perform these duties constitute our moral conduct. These ways are dictated by the instincts, emotions and sentiments, in other words, by the faculties of the mind, of which two exercise an authoritative influence over the rest, by regulating and controlling their actions, and may therefore very properly be called the supreme faculties,—Reason and Conscience. One of these, Reason, discloses the true relationships of things and events; the other, Conscience, indicates the propriety and impropriety, the right and wrong, of our actions.

The influence of the physical sciences upon our conduct as regards self-preservation ought to be paramount, inasmuch as it is by them that the conditions of healthy existence are determined; and therefore, upon them we are dependent for rules for our guidance

in the due fulfilment of those conditions. All our higher duties are capable of fulfilment upon the sole condition of healthy existence.

धर्मार्थकाममोक्षाणामारोग्यम् मूलमुत्तमम् ।

Health is the chief foundation of virtue, wealth, desire, and beatitude (final liberation of the soul).

These words are as true now as when they were first uttered by our Rishis of old. And therefore it is that the duty of self-preservation is a primary, fundamental duty, the neglect of which means, inasmuch as it involves and necessitates, the neglect of all other duties. But paramount as that influence ought to be, it is yet far from being so. The conditions of our existence are regulated even amongst the best educated by ignorance and caprice rather than by the teachings of physiology, for the simple reason that a knowledge of the science is confined to the student of medicine, and has not yet formed a subject of general education.

A similar remark with greater emphasis has to be made as regards the influence of the physical sciences upon our conduct relating to the duty of preservation of our race. That influence is yet almost non-existent, at least is most deplorably inadequate to the importance of that duty. The continuance of the species throughout the world of life depends upon the union of two principles which in our human language we call marriage. The observer of nature cannot fail to see that there is a season for each species, of plant and of animal, before which this union, this consummation of marriage, does not take place. In man alone, whom the Author of his being has endowed with the highest attribute of mind—Free Will,—in man the performance of this, the highest function of life, has been left to his free will.

The best corrective of this moral perversity can only be furnished by an intimate knowledge of that division of the physical sciences which treats of the laws of life, that is, of biology, and specially that department of it which treats of animal life. It is only when we are deeply impressed with the laws of reproduction, of the influences of heredity, that we can see through the folly and wickedness of the infringement of those laws, of the disregard of those influences; and then and then only can we exercise an effectual check upon those instincts and passions which otherwise become so ungovernable.

One of the most important subjects to which the attention of all, young and old, men of all shades of beliefs, thoughts and opinions should be perpetually drawn, is, in my opinion, the

perniciousness of the custom of child-marriage, a custom which has been the most efficient cause of the ruin and degeneracy of the Hindu race. I believe it would be impossible for this custom to endure, if the leaders of our society, or indeed every man and woman of our community, were made to see in the light of physiology what child-marriage in reality means; if they could be made to fully realise that it not only inevitably and to a living certainty prematurely exhaust the couples who are forced to reproduce before the proper season, before they themselves arrive at maturity; but by virtue of that gives rise to offspring who must necessarily share all the immaturity and attendant weakness and incapacity of the parents, and that a succession of such generation means progressive degeneracy and imbecility of the race thus perpetuated.

The influence of the physical sciences upon our conduct as regards our duties to our neighbours is not of the direct character that we have found it to be upon our conduct as regards our duty to ourselves and to the race. But though indirect, they are not less important.

If the student of the physical sciences is impressed with any one fact more than another, it is that there is no lie in Creation. Countless as are the objects he meets with in his survey of the universe around him, he receives the same answer from the same object whenever and wherever he interrogates it as to its relations with other objects. There is no whim, no caprice, no ambiguity. The behaviour of one substance with another is invariably the same to-day, yesterday and for ever, *under the same circumstances.* So firmly does this conviction become rooted in the mind of the student of physical science in the course of even a short study, that all apparent deviations are not only not looked upon as real deviations from nature's laws, but are believed to be due to the intervention of some fresh, unforeseen agency, and are therefore most narrowly watched and made the turning points of fresh discovery. Such a student, if he is not radically perverse, if he is not altogether devoid of a moral nature, cannot fail to see the *moral bearing of this universal fact*, cannot but feel and acknowledge the irresistible force of this *preaching of truthfulness* in one accordant voice by every object, small and great, in every region near and far of the universe of God, and cannot but shape his conduct accordingly towards his fellow-creatures.

There is another fact as universal as the one just mentioned, which, indeed, is its necessary outcome, but which science has

revealed in its full significance only in these latter days. This is known as the Law of Conservation of Energy. There is nothing occult or mysterious in the expression. It simply means that nothing is lost. Not only is matter indestructible, but every particle, however minute, is so intimately linked with all the rest in the universe, that there cannot be a disturbance in it, however slight, but will be communicated to its immediate neighbour, and will thus travel from particle to particle, till it pervades the whole universe. The original disturbance may not be, and generally is not, communicated in its original form, but is transformed in a variety of ways, and thus becomes permanently registered not only at the place where the disturbance first occurred, but everywhere and for all time. What a deep, what a terrible significance has this fact for every rational and responsible being! Not a thought, not a feeling, not a sentiment can arise in the hidden recesses of the soul, not a sigh can escape the troubled heart, not a word can be uttered, not a deed can be done, but will be felt and recorded throughout the whole length and breadth and depth of the universe, in characters which cannot be effaced without annihilating the universe itself.

The words of Babbage in this connection will thus be seen to represent but sober, measured truth: "If the Almighty," says he, "stamped on the brow of the earliest murderer, the indelible and visible mark of his guilt,—He has also established laws by which every succeeding criminal is not less irrevocably chained to the testimony of his crime: for every atom of his mortal frame, through whatever changes its severed particles may migrate, will still retain, adhering to it through every combination, some movement derived from that very muscular effort, by which the crime itself was perpetrated. The soul of the negro, whose fettered body surviving the living charnel-house of his infected prison was thrown into the sea to lighten the ship, that his Christian master might escape the limited justice at length assigned by civilized man to crimes whose profit had long gilded their atrocity,—will need, at the last great day of human account, no living witness of his earthly agony. When man and all his race shall have disappeared from the face of our planet, ask every particle of air still floating over the unpeopled earth, and it will record the cruel mandate of the tyrant. Interrogate every wave which breaks unimpeded on ten thousand desolate shores, and it will give evidence of the last gurgle of the waters which closed over the head of his dying victim: confront the murderer with every corporeal atom of his immolated slave, and in its still

quivering movements he will read the prophet's denunciation of the prophet king"—"THOU ART THE MAN!"

This law of conservation of energy is not an idle dream of the visionary, but a positive fact which modern research has discovered in every department of Nature. And it is my faith that this the latest teaching of the physical sciences, cannot but exert its chastening and subduing influence upon our whole moral being.

One of the gentlest hearts that ever breathed, an ardent admirer of nature and a lover of his species, has given expression, in inimitably beautiful but heart-rending language, to the anguish which every one however obdurate cannot but feel in his retirement from the bustle of the world, when reflecting upon the miseries which man has brought upon his fellow-men, under the idea that there will be an end of all human transactions with present existence and that time will bury in oblivion all that happens.

> To her fair works did Nature link
> The human soul that through me ran;
> And much it grieved my heart to think
> What man has made of man.

But when the conviction of the awful reality which modern science has proved to demonstration, that there cannot be an end of any human transaction with the end of this life, that there is no such thing as oblivion,—when such a conviction gains ground and has the ascendancy it ought to have and must have, then it is likely that the human world will cease to be the pandemonium which human wickedness and villainy have made it; and then, being in harmony with the world around, it will not only be glorious to look at, but glorious (and not, as Schopenhauer has very properly said it is, dreadful) in reality.

[It will be permissible, we hope, to point out the bearing which this Law of the Conservation of Energy discovered by modern physicists should have upon our moral conduct if the said Law could be applied to the moral or metaphysical world. And we would do so in the language of the late Professor Max-Müller: "The belief that no act, whether good or bad, can be lost, is only the same belief in the moral world which our belief in the preservation of force is in the physical world. Nothing can be lost. If a man feels that what, without any fault of his own, he suffers in this life, can only be the result of some of his own former acts, he will bear his sufferings with more resignation like a debtor who is paying off an old debt. And if he

knows besides that in this life he may by suffering not only pay off his old debts, but actually lay by a moral capital for the future, he has a motive for goodness which is not more selfish than he ought to be. There must be a cause, the Vedanta philosophers say, to account for the effect which we see but too clearly, and that cause cannot possibly be found in the mere caprice or injustice of the Creator. However sceptical we may be on the power of any ethical teaching, and its influence on the practical conduct of men and women, there can be no doubt that this doctrine of Karman, (karman means simply act or deed) has met with the widest acceptance and has helped to soften the sufferings of millions and to encourage them not only in their endurance of present evils but likewise in their efforts to improve their future condition " (Max-Müller's Vedanta Philosophy, pp. 164-66.) —*Editor, Dawn*].

[*To be continued.*]

MAHENDRA LAL SIRKAR.

LIQUID AIR AND SOLID AIR.

Mr. Rudolph Cordova in an article on the subject in the July (1901) number of *Cassell's Magazine* remarks that liquid air is " the most sensational thing in the scientific world to-day." Liquid air is made by applying great pressure, and very low temperature. Eight hundred volumes of ordinary air, when pressed, only make one volume of liquid air. Pure liquid air is at first almost colourless, but as the nitrogen of the air evaporates it becomes bluish, and when the liquid cortains as much as 80 per cent. of oxygen it is sky-blue.

Many curious phenomena are noticed with liquid air. For instance, an India-rubber ball, dipped in it, is so brittle when taken out that it is shattered to pieces if thrown against the wall. *All metals are more or less similarly affected*.

Liquid air is also used for making " alcohol ice," alcohol itself being hitherto supposed to be incapable of being solidified and therefore always used for measuring degrees of extreme cold. A most curious illustration is given of a kettle of liquid air boiling on a lump of ice; the explanation being that the heat of the atmosphere in comparison to the heat of the liquid air is greater than the heat of the fire when compared to the heat of the water in the kettle. A finger dipped into liquid air is not wetted. An egg. dipped into it is frozen so hard that it can be pulverised.

Solid air has also been produced, and is like a stiff, transparent jelly which can only be examined in a vacuum or an atmosphere of hydrogen, *as it melts when exposed to the temperature of liquid air.*

As to the *uses of liquid air*: To the scientist, it is of great use, as it enables him to study matter at a temperature so low that metals lose resistance to the passage of electricity. Since, however, liquid air is now beginning to be supplied *in the same way as ice, and costs little more*, its uses will be indefinitely extended; and in the twentieth century, liquid air may become as important a factor as electricity.

A. MAHADEVA SASTRI'S LATEST CONTRIBUTION.

We beg to offer our apologies to A. Mahadeva *Sastri*, B. A., Curator, Government Oriental Library, Mysore, for having delayed in reviewing his latest and most noteworthy contribution to the study of Vedic Literature, being a most careful and useful translation into English of Book II. (*Ananda*-Valli) Part A—(Brahmavidya Expounded) of the Taittiriya-Upanishad with the commentaries of Sankaracharya, Suresvaracharya, and Sayana (Vidyaranya). The present is the third of the volumes on the subject of Taittiriya Upanishad, which Mr. *Sastri* has brought out, the first being an Introduction, and the second, a translation with standard commentaries, of Sikshavalli, both of which we have had occasion to review in the highest terms of praise. No student educated in English and anxious to learn the highest teachings of the Upanishads could rest satisfied until he had mastered the Taittiriya Upanishad; and to that end, no one could be a better, a safer guide than Mr. *Sastri*. For it is no disparagement to the learned translators of Vol. XV. of the Sacred Books of the East series (which gives a translation of the same Upanishad) to say that they are less in touch with the subject than Mr. *Sastri*. We will conclude this short notice of Mr. *Sastri*'s most valuable work by quoting the following remarks of the late Prof. Max-Müller (*vide* his *Vedanta Philosophy*, p. 35) in connexion with the scope of the Taittiriya Upanishad. In this Upanishad, according to Max-Müller, "the uniform purpose running through all of them (the Upanishads), was clearly brought out, and a system of philosophy was erected out of such diverse materials, which is not only perfectly coherent, but quite clear and distinct on almost every point of doctrine." Mr. *Sastri*'s is a goodly volume of 317 pages and is priced at Rupees Two only.

EDITOR.

Uttarpara
Jaikrishna Public Library.

THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः ।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—*SANKARA.*

WHOLE NO. LI. } CALCUTTA, OCTOBER, 1901. { No. 3. VOL. V.

EARLY HISTORY OF MEWAR IN THE LIGHT OF LATEST RESEARCHES IN ARCHÆOLOGY.

Perhaps it would not be an exaggeration to say that after *Ramayana* and Mahabharata the work that is most cherished in modern India is James Tod's "Annals and Antiquities of Rajasthan." In itself a work of no great literary pretensions, it has attained the dignity of a national epic in the land of Valmiki and Vyasa. Built out of the chronicles of bards who made no distinction between truth and fiction, it is looked up to by the most eminent scholars as a great landmark in the unexplored regions of Indian history. The secret of the unique success of this work is to be sought in the genuine, hearty sympathy and love of the author for the remarkable people whose exploits he narrates; and the indefatigable diligence that marks its every page has won for it the estimation of the learned. Long will the Indians turn to warm themselves in the glories of Rajput chivalry enshrined in the pages of Tod.

But when Tod compiled his "Annals," Indian Epigraphy was in its infancy, and of the collateral records and chronologies, only a limited number were accessible to the public. Although Tod availed himself of all the sources then at his command, authentic contemporary records unearthed by recent archæological researches, and a more extensive knowledge of the chronicles of the kingdoms of Gujarat, Malava and Delhi reveal many obscurities and inaccuracies in his work. The conflict between the authorities of Tod and the evidences at our command is so great in some essential points, that with all deference to the noble historian, I am constrained to say that the time for *re-editing* his monumental work has arrived.

Such is pre-eminently the case with the annals of Medapata or Mewar—the most ancient of the principalities of Rajasthan. Tod's annals of Mewar, which is by far the most interesting part of his whole work, is based upon ballads and bardic-chronicles compiled in the seventeenth century. He had an excellent collection of Muhammadan authorities in Brigg's "Ferishta," Gladwin's "Ain-i-Akbari," and Leyden and Erskine's "Memoirs of Babar." But his predilection for the Rajputs led him to give consistent preference to the stories of the bards without examining them in the light of strict criticism. Now, along with a few valuable inscriptions, Tod was in possession of a very respectable collection of Muhammadan works relating to his subject. These taken together may, no doubt, be regarded as materials of a very high order, fairly representing all the parties concerned. But the references of the Muhammadan writers are so indirect and so much coloured by their fanatical hatred of the Hindus, and the inscriptions are so scanty and so much imbued with a tendency to exaggeration inherent in a contemporary composer of *Prasasti* or laudatory verses, that any attempt to *rewrite* the annals of Mewar must be premature until further ampler evidences are brought to light. My business in the following pages is simply to put together a number of notes embodying the results of modern researches in the early history of the dynasty of Mewar which are scattered through many costly and often inaccessible volumes. I aim at no higher object than to stimulate in the minds of my readers a desire for "more light" on this the most popular chapter of Indian history.

The earliest account of the establishment of the Sesodiah dynasty in Mewar is furnished by an inscription (*a*) of Vikrama Samvat 1342 (A.D. 1285) found in a monastery adjoining the temple of Achaleswar near Achalgirh on Mount Abu. "Harit Rishi," the record runs, "granted (the goddess of) royalty to his votary, the renowned Bappa Rawal. Bappa Rawal artfully transferred the characteristics of a Brahman (acquired during his breeding in a Brahman household) to Harit Rishi, resembling Brahma in his prowess as it were, by means of his services to the sage; and in return he received the splendour of a Kshatriya from the Rishi in the form of a golden anklet." Perhaps herein lies the kernel of truth around which has gathered that huge mass of bewildering romance well known to every reader of Tod. But it is too meagre and vague;

(a) Journal of the Asiatic Society of Bengal, 1886, Part I.; Indian Antiquiry, Vol. XVI, page 354.

and nothing can be made out of it without some commentary to elucidate the text. An excellent commentary is furnished by a great author who wrote three hundred years after the composition of the Abu inscription. Abul Fazel, in his Ain-i-Akbari gives a lucid and I must say, critical version of the traditions relating to the founder of the dynasty of Mewar. I can do no better than reproduce it *in extenso*.

"An ancestor of the (Ghelote) family through the vicissitudes of fortune came to Berar and was distinguished as the chief of Narnalah. About eight hundred years previous to the present time, Narnalah was taken by an enemy and many were slain. One Bappa, a child, was carried by his mother from this scene of desolation to Mewar and found refuge with Raja Mandalikh, a Bhil. When he grew up to man's estate he followed the pursuit of shepherd and was devoted to hunting in which his daring was so conspicuous that he got into favour with the Raja and was made a trusted minister of State. On the death of the Raja, his four nephews quarrelled about the succession, but they eventually decided to resign their pretensions in favour of Bappa and to acknowledge his authority. Bappa, however, declined their offer. It happened one day that the finger of one of these four brothers began to bleed, and he drew with the blood the ceremonial mark of installation on the forehead of Bappa, and the others also concurred in accepting his elevation. He then assumed the sovereignty. To this day, the custom continues of marking with human blood the sign of investiture of any Rana who succeeds to the throne. The ungrateful monarch put the four brothers to death. On a former occasion while passing through the wilds, mistaking one Haranj (Harit Rishi), a hermit, for a wild animal, he fitted an arrow to his bow. The hermit, intuitively prescient of this action through his purity of heart, made himself known, and the Raja repentantly excused himself and humbly visited him with assiduity. The hermit one day predicted his elevation, and marvellous tales are told regarding him. From his head-quarters being at Sesoda, the tribe is called Sesodiah; and as a Brahman, at the beginning of their history nurtured their house, they are accounted as belonging to this caste"(*b*).

The migration of infant Bappa to Mewar is approximately dated by Abul Fazel at "about eight hundred years previous to the present time,"(A.D. 1590) *i.e.*, about 790 A.D. The genealogy given in the Abu

(*b*) Jarrett's "*Ain-i-Akbari*;" Vol. II., pp. 268—269

inscription mentions twenty-nine princes, from Bappa down to the then ruling prince, Rawal Samar Simha. Allowing twenty years for each of these princes, we arrive at the first decade of the eighth century as the period of Bappa's establishment in Mewar. Tod places it a few years later—A.D. 728, and Kavi Raj Shyamal Das, the poet-laureate of the Maharana of Udaypur, puts it in A.D. 735. But all our guesses and calculations are set at naught by a Udaypur inscription of [Vikrama] Samvat 718 (A.D. 661). It records: "In the glorious Guhila family there was a king, name Aparajita, who chose for his chief leader the son of Siva, the Maharaja Varahasimha" (c). The name of Aparajita does not occur in the Abu inscription. But it is included in the list of the Guhila princes found in an inscription from the ruins of Aitpur (d). There *Aparajita* is mentioned as sixth in descent from Sri Goha Dit. Among the four princes who come between Goha and Aparajita in the Aitpur list two only find mention in the Abu inscription. Starting from A.D. 661 as the date of Aparajita, we may fix the date of Bappa some time towards the close of the first quarter of the sixth century. But a great difficulty arises in reconciling the date of the Udaypur inscription of Aparajita with the Aitpur inscription of Sacti Kumar. The name of Sacti Kumar occurs in the Abu list as the twelfth prince of Mewar. The Aitpur inscription bears the date of Samvat 1034 (A.D. 977) and represents Sacti Kumar as fifteenth in descent from Goha. Nothing can be said finally on this point until the Aitpur inscription is re-edited.

"Bappa Rawal's son," the Abu inscription tells us, "was Guhil who dealt out justice impartially. The Rajas descended from him are distinguished by the title of Guhils." From Guhil onwards for twenty-two generations, bringing us near the end of the third quarter of the twelfth century A.D., the Abu inscription records nothing that is of any historical value. One among the princes, Khummana or Shummana, the ninth in the list, must have been a distinguished ruler; for, with Guhil, he shares the honour of giving his name to the illustrious race of the Sesodiahs. But from its foundation down to the middle of the twelfth century, the history of the dynasty is a blank sheet. With the exception of the Udaypur inscription of Aparajita, no direct evidence is available to throw light upon the long mediaval night. We get only an indistinct glimpse of an

(c) Epigraphia Indica, Vol. IV., p. 30.

(d) Tod's "Rajasthan," Vol. I. Appendix, Inscription No. V.

episode of the tenth century from an inscription at Bijapur (in the Bali-Godwar district of Marwar). The inscription has only been partially deciphered by Prof. Kielhorn (e). "From the first half of verse 10," writes that eminent epigraphist, "it appears that Munjaraja, who must be taken to be Vakpati Munja of Malawa, for whom we have dates of the Vikrama years 1030 (A.D. 973), 1036, and 1050 (A.D. 993), invaded Medapata; and the second half of the verse probably states that the ruler of that country on that occasion was either supported or sheltered by Dhavala," the ruler of Hastikundi (Hatondi).

About the middle of the twelfth century, archæological evidences begin to cast an intermittent light on the path of the chronicler of Mewar. Contemporary records enable us to have a peep into her political condition in the third quarter of that century. A Chitorgadh stone inscription of Samvat 1207 (A.D. 1150, records that Kumarapala, the Chaulukya king of Gujarat (A.D. 1142—1173), visited Mount Chitrakuta after he had conquered Sapadalaksha (Sambar) (f). The inscription is silent about the ruling prince of Chitorgadh. This inclines one to surmise that he was not thought of sufficient importance to deserve a place in the same record with the lord of Gujarat. Two other inscriptions (g) of A.D. 1169 indicate that a portion at least of the territory of Mewar was then under the actual control of the Chauhans of Ajmere. The Bijholi rock inscription, dated Falgun Badi (*i.e.*, dark-half) Samvat 1226, "records the grant of a village of Rewna by Somesvar Deva, the father of Prithviraj." The second inscription, dated the same year is "found on a pillar over the northern gateway of a palace in Meualgadh in Mewar recording the erection of a monastery by Bhava Brahma while Prithviraj Chauhan was the reigning monarch."

The testimony of these inscriptions is confirmed by verse 37 of the Abu inscriptions. "Afterwards winning (again) fortune," the verse runs, "who was embarrassed by his separation from the lineage of Shummana, (and) who clearly was pining for the Guhila-family, Kumarsimha, made the earth possessed of a good king, having taken it away from the possession of the enemy." From this it is evident that Mewar had got into the possession of some enemy and Kumarsimha reconquered her. In matters that reflect discredit upon the predecessors of the reigning prince the composer of a *prasasti* can be

(e) J. A. S. B, 1893, Part I, p. 331.
(f) Epigraphia Indica, Vol. II., p. 421.
(g) J. A. S. B., 1886, Part I.

relied on. And we may regard it as certain history that there was a conquest and reconquest of Mewar in the twelfth century.

According to our computation based upon the Abu inscription, Kumarsimha, the liberator of Mewar, must have been reigning some time during the last quarter of the twelfth century. His reign, therefore, brings us to the time when Shihabuddin Ghori was conquering Hindusthan. Tod, following "Prithviraj Rasa" of Chand, make Samar Simha die on the field of Tarain fighting under the Chauhan king against the Moslem conqueror of Hindusthan. But this is anticipating history by nearly a century. In the previous paragraphs I have suggested corrections of the traditional chronology of Mewar on many important points upon strong archæological grounds. But archæology has dealt its severest blow at the indigenous chronology of Rajasthan, by proving "Prithviraj Rasa" a forgery (*h*). The Rajput History of this period is overshadowed by mistakes and inventions consequent upon a common belief in this epic poem. A series of four inscriptions, the most important of which is the Abu inscription, give the date of Rawal Samar Simha between A.D. 1275 and 1287, and no other prince of the same name is mentioned in the list. But as regards the exact relations of the last of the Chauhans with Kumarsimha and his predecessor, I am not warranted to say more than what I have already suggested.

When the Chauhan kingdom of Delhi and Rathor kingdom of Benares fell before the arms of Shihabuddin, their allies and dependents of Central India escaped the calamity. The successors of the conqueror refrained, for above a century, from making any vigorous efforts to push the southern frontier of the empire beyond the line that may be drawn from west to east, linking Ajmere, Rantambhor, Gwalior, and Kalinjar. Although her dependency of Malwa was repeatedly overrun, Gujarat changed her Chaulukya dynasty for the Baghelas without any interference on the part of the imperialists of Delhi in the thirteenth century. Mewar also enjoyed immunity from serious Moslem aggression, and Rawals Padma Simha, Jaitra Simha, Tej Simha, and Samar Simha ruled her in succession. Of Jaitra Simha, the Abu inscription records that he "was to the army of Turks like Agastya to the ocean." This perhaps refers to a probable repulse inflicted upon the army of the Muhammadan Governor of Nagawr in 651 H (A.D. 1253) by the lord of Chitor. Ulugh Khan-i-Balban (afterwards Emperor Balban), the prime minister of Sultan

(*h*) See Kavi Raj Shyamal Das's learned article on the subject; J. A. S. B. 1886, Part I.

Nasiruddin Mahmud of Delhi (A.D. 1245—1265), who was then in disgrace, held the fief of Nagawr for the Sultan. "During the period," writes Minhaj, "that Uugh Khan-i-Azam had gone to Nagawr, he lead the troops of Islam (*i.e.*, the forces of his fief) towards the territory of Rantambhor, Bhundi, and Chitrur" (*i*). The names, Bhundi and Chitrur, are corruptions of Boondee and Chitore. Rantambhor was first captured by Altamish and retaken after his death. Ulugh Khan met with formidable opposition from Nahar Deva of Rantambhor and was probably compelled to withdraw the detachments sent to attack Boondee and Chitore; or those detachments might have been repulsed on account of his failure to send re-inforcements.

We have knowledge of only one date concerning Rawal Tej Simha, —A.D. 1267, from an inscription. His son and successor, Samar Simha, was a younger contemporary of Emperor Ghiyasuddin Balban (A.D. 1265-1286). The Abu inscription, which records a great landmark in the chronology of the Sesodiah dynasty, was composed to celebrate his munificence. Therein is given the greatest political achievment attributed to Samar Sinha: "This clever prince, Samar Simha, delivered the land of Gujarat from its drowning state in the ocean of the Turkish army." Ziauddin Barni, the historian of the reign of Balban, notices no invasion of Gujarat by the imperialists during the reign of that Emperor. But as Muhammadan pilgrims to Mecca frequently passed through Gujarat (*j*) "the ocean of the Turkish army" may refer to the troops despatched to Gujarat to escort some eminent pilgrim to the sea-coast who may have acted aggressively and been crushed with the aid of the Rawal of Mewar.

Samar Simha was succeeded by his son, Rattan Simha. During his reign Alauddin Khilji usurped the imperial throne of Delhi. Alauddin pushed the frontier of the empire to the natural boundary of Northern India by conquering and annexing Malwa and Gujarat. Then came the turn of Mewar. A halo of romance has gathered round Alauddin's capture of the capital of Mewar. Barni's account is brief and plain. "Sultan Alauddin," writes the historian, "then took the army away again from the capital, and marching to Chitore, invested the fort and speedily reduced it, after which he returned to the capital" (*k*). But Abul Fazl lends the weight of his great authority to the romance. Abul Fazl thus tells the story :—

(*i*) Raverty's "Tabakat-i-Nasiri," p. 828.

(*j*) For pilgrims from Hindustan to Mecca passing through Gujarat, see Tawney's "*Prabandhachintamani*" of Merutanga Acharya, pp. 164—165.

(*k*) Translations from the "*Tarikh-i-Firoz Shahi*," J. A. S. B., 1870, Part I., p. 19.

"Ancient chroniclers record that Sultan Alauddin Khilji, king of Delhi, had heard that Rawal Rattan Si, prince of Mewar, possessed a most beautiful wife. He sent to demand her but was refused, upon which he led an army to enforce compliance and laid siege to Chitor. After a long persistence in beleaguering the place in vain, he had recourse to artifice and proposed terms of peace and friendship. The Raja readily acquiesced and invited him to an entertainment. The Sultan entered the fort with his chosen followers and the meeting took place amid festivity and mirth, and finding his opportunity he seized the Raja and carried him off. It is said that the Sultan's retinue consisted of a hundred men and three hundred picked soldiers dressed as attendants. Before the Raja's troops could assemble he was carried away to the camp amidst the wailing of his people. The king (Sultan) kept the Raja in close confinement with a view to extort compliance with his desire. The faithful ministers of the Raja implored the king (Sultan) not to injure the (Raja) and promised to deliver up to him not only the object of his love but other suitable partners for his harem. They also sent a forged letter purporting to come from the virtuous queen and lulled his suspicions to sleep. The king was delighted and not only refrained from personal violence but treated the Raja with cordiality. It is related that seven hundred of the choicest troops dressed as women were placed in litters and set out for the king's camp and it was given out that the Rani with a large number of her attendants was on the way to the royal pavilion. When they approached the camp, word was sent that the Rani wished to have an interview with the Raja previous to entering the king's quarters. Lapped in his illusive dreams of security, the king granted the interview, during which, the soldiers seizing the opportunity, threw off their disguise and bore off their prince. Time after time the Rajputs stood to face their pursuers fighting manfully, and many were slain before the Raja had gone far. At length the Chauhans, Gaura and Badal made a stand, fighting to death and thus enabling the Rawal to reach Chitore in safety amidst universal acclamation. The king having endured great hardships during the siege and finding it to no purpose, returned to Delhi. After an interval, he set his heart again on the same project and returned discomfited. The Rawal wearied with these assaults, conceived that an interview with the king might result in an allowance and that he would thus escape this state of continued strife. Guided by a traitor, he met the king at a place seven kos from Chitore, where he was basely slain."

Such is the famous episode of Padwavati. Unfortunately the works

of Abul Fazl's "ancient chroniclers have not come down to us. Barni is silent about the passion of Alauddin for the consort of the Rawal. The stern character of that monarch is not consistent with any extravagant passion. But the silence of Barni alone cannot be regarded as conclusive proof of the fabulous character of this episode. Barni is also silent about the amours of Khizr Khan and Dewala Rani, the princess of Gujarat. If we carefully analyse the version of Abul Fazl, it will not be difficult to distinguish the legendary element from truth. The only incident which has a suspicious air of romance is the stratagem adapted to rescue the Rawal. If we do away with this part, the remainder may safely be regarded as genuine tradition.

"When Rawal Ratan Si died," continues Abul Fazl, "a relative named Arisimha (*l*) was raised to the throne and entitled Rana." Ill-fated Arisimha is the first prince of Mewar who assumed the title of Rana. "The Sultan returned to the siege of Chitore and captured it. The Raja was slain fighting and all the women voluntarily perished by the fire. Hammira (*l*), his son, betook himself to the adjacent mountains." This was in A. D. 1303.

RAMAPRASAD CHANDRA.

ON DURGA, SIVA AND KALI IN THEIR EXOTERIC ASPECTS: A CRITICISM ON MAX-MULLER.—II.

[*Continued from page 42, Vol. V.*]

We have done with the two primary stages as we have termed them treating first (1) Durg*a* as a Vedic conception and secondly treating of the connexion between the Vedic Altar and Durg*a*. We have proposed only to present Durg*a* in Her exoteric aspect; for it is from that view alone that Prof. Max-Müller has treated Her and has denied Her a Vedic origin. We now proceed in this Part (Part II.) with what we have termed the *Developmental Stages*, divided under the following heads:—

(*a*) Development of Sat*i* into Um*a*.
(*b*) Development of Um*a* into Ambic*a*.
(*c*) Development of Ambic*a* into Durg*a*.
(*d*) Durg*a* as the "Representation of the Highest Divine Wisdom."
(*e*) Durg*a*'s Names; their explanation.

(*l*) I restore Abul Fazl's corruptions (Arsi and Hamir) on the authority of a later inscription.

In our previous article on this subject we said, "that this explanation of Durga by Prof. Max-Müller is pure guess-work would be evident when proceeding with our arguments we establish the different stages in the process of the development of the Vedic Sacrificial Altar into the final aspect of Durga." And this we proceed now to do.

PART II. THE DEVELOPMENTAL STAGES.

(a). *The development of Sati into Uma.*

The *Puranas* say that Sat*i*, the daughter of Daksha, died on account of her husband *S*iva being insulted by her father, and that she was again born as Um*a*, the daughter of Himalay*a*, and married to *S*iva for a second time.

Such sayings as these, which are generally put aside by the European scholars, as productions of a highly tropical imagination are of the utmost importance for the purposes of the present inquiry. For, Sat*i* being identified with the Vedic Altar, and Um*a* being identified with Sat*i*, there can be no doubt about Durg*a* having been exclusively a Vedic conception. Now, the Paur*a*nik statements may be judged from three different view-points; they are either fictitious, or real, or allegorical. Now, they cannot be fictitious, for they deal with Daksha, Sat*i*, the daughter of Daksha, Rudra, *S*iva, Um*a* and Ambic*a*, as characters or conceptions that occur in the Vedas. We may next take them as real; and say that Sat*i* was born as Um*a* in a subsequent birth which is the Hindu believer's creed; but as this necessarily involves a question of the transmigration of souls, and calls for something like positive proof as to the metempsychosis of Sat*i* into the person of Um*a*, we may leave it alone to suit the point of view of modern cultivated reader's beliefs. He will, therefore, have no objection to treating the Paur*a*nik statements, as allegorical or symbolical. Thus, he will have no objection to the following explanation of the Paur*a*nik statement. When the Pur*a*na says that Sat*i*, the daughter of Daksha, died on account of her husband being insulted by her father, the modern western reader may take it that it was intended to be conveyed that when the Rishis put out their sacrificial fire, the altar fell fast into disuse. And he may further take it that in saying that Sat*i*, the daughter of Daksha, was born again as Um*a*, the daughter of Him*a*lay*a*, the Pur*a*na probably meant that a revival of the Vedic sacrifices took place somewhere in the Northern Districts. And the foreign Orientalist will be further fortified in this view if he remembers that

the name *Uma* itself reflects a great light upon the subject. The idea of "no more meditation" is what is conveyed by the word, *Uma*. Says Kalidasa,

उमेति माता तपसे निषिद्धा ।
पश्चादुमाख्यां सुमुखी जगाम ॥

[Being forbidden by her mother to meditate, she was afterwards called *Uma*.]

And "no more of meditation" implies probably a revival of sacrificial practices. And this revival, as we have already said, was not to rekindle the fire, but to make an image to represent the Fire.

Nor this is all. The above sloka furnishes an instance of transferred epithet; so that divested of the figure, it means that the Rishis were forbidden to meditate by a motherly spirit, whom they called *Uma*.

(*b*) THE DEVELOPMENT OF UMA INTO AMBICA.

The change was not, however, abruptly made. Considerable time seems to have elapsed before *Uma*, the spirit prohibiting meditation and enforcing sacrifice, could be personified in Durga. We see mention of *Uma* in Kena-Upanishad as a splendid female being seen in the sky, whom the Rishis held to be Brahman or the Supreme Being, as will appear from the following extract.

स तस्मिन्नेवाकाशे स्त्रियमाजगाम बहुशोभमानामुमां
हैमवतीं सा ब्रह्मेति होवाच, ततो हैव विदाञ्चकार ब्रह्मेति ।

"Then he (Indra) came across a splendid female in the sky known as *Uma* Haimavati, and said that she was Brahman; therefore, he knew she was Brahman."

Thus, we see that *Uma*, though mere the Sacrificial Altar in her previous existence, was fast rising into a feminine god-head during the revival, being no longer the mere Altar, but the Altar and the Fire combined, as is clearly shewn by the following extract from the Yajurveda.

अथ ते रुद्रभागः स्वस्रा अम्बिकया तं जुषस्व स्वाहा ।

'Oh Rudra, enjoy this your share (of oblation), with your sister, *Ambica*.'

During the time of Yajurveda, *Uma* originally the wife of, or an under-deity to, Rudra, was growing under the name of *Ambica* to be his sister, or rising to an equal importance, and partaking of the sacrificial offerings with the great God of Fire.

Thus, we see that the 'terrible flames' of Agni which prevented Prof. Max-Müller from identifying Durga with Agni, were during the revival, fast changing into the sober lustre of Ambica, tender as a mother, loving as a girl, revealing as it were, the propriety of a feminine mediation between man and God.

As to the definite form of Durga, the following Gayatri of the Taittariya Aranyaka has, in my humble opinion, contributed to it more than all the rest.

ओं कात्यायनाय विद्महे कन्या कुमारी धीमहि ।

तन्नो दुर्गिः प्रचोदयात् ॥

"We invoke Durga, whom Katyayana saw in the shape of an unmarried girl, who sends us understanding.'

Under the influence of the above Gayatri, there seem to have arisen two classes of worshippers, one worshipping unmarried girls, and the other worshipping an image of the same denomination.

KEDARNATH VIDYABINODE.

EDUCATIONAL VALUE OF THE PHYSICAL SCIENCES FROM A MORAL POINT OF VIEW.—II.

(BY MAHENDRALAL SIRCAR, M.D., D.L., C.I.E.)

[*Continued from page 63, Vol. V.*]

We have lastly to see if the study of the physical sciences has any influence upon us as regards our supreme duty, our duty to the Creator.

The spectacle of Nature, even in her superficial aspects as presented to the unaided senses, awakens in man feelings and sentiments and reflections which impel him to go behind the spectacle, to dive beneath the surface of the phenomena, in order to unravel the mystery and inquire into the cause of all this wonderful and magnificent panorama. This tendency to inquire into cause is inherent in the human mind, is an irresistible necessity of its very being. The will which we possess and by which we put forth our power to do what we wish to do, and the fact that the phenomena presented by Nature have all the impress of mind in them, foster and encourage this tendency. And accordingly we find that from the remotest ages of which we have record, man has not been satisfied with being merely an idle spectator of all that he sees, with being merely part and parcel of the system in which he finds himself placed. Whence all this and whither does it tend? Whence

and what am I, and what is my own destiny?—are questions which occur to him with the dawn of his reason, and recur and haunt him at every step of his life. And the invariable result has been that the answer to these earnest questions which proceed from the depths of the soul, has never been satisfactorily furnished by the system itself, without the supposition of a Superintending Intelligence.

The adaptations of parts to each other for the subserviency of ends are so common and so obvious throughout the world which we inhabit in all departments, and in the heavens above, that even an observer that has not the advantage of modern instruments which have in a most marvellous degree extended the range of the senses, even such an observer cannot fail to be struck by them. They have been the theme of admiration in all ages, and have inspired man with the most exalted sentiments of which he is capable, the sentiments of reverence and adoration to the Almighty Power, who is the author of all this wondrous world we see. To the sweet singer of Israel the heavens declared not only the glory but the righteousness of God. Jesus loved to draw the sublimest lessons of morality from the lilies of the field and the fowls of the air, and little children. In the eyes of Shaikh Saadi, the most philosophic of Persia's bards, every leaf of every plant was a volume which proclaimed the wisdom of the Creator. Galen said, that the best hymn man could chant in honour of the Creator was to write a work on anatomy.

Such was the influence which nature even in her superficial aspects exerted upon minds which could appreciate her beauties, such the inspiration with which she filled hearts which could feel the presence of her Lord in all her doings. Increased knowledge of nature has only unfolded her charms more and more. Science has not, as the poet would have it, "from creation's face enchantment's veil withdrawn." Every new discovery has added but fresh enchantment to what existed before.

Take the case of the heavens. Reflect for a moment upon the order which modern astronomy has introduced into that chaos of shining orbs and points which the darkness of night discloses to our view, how she has discovered the one universal law which controls their movements, how with the aid of the properties of light and the laws of chemical affinity discovered in our laboratories here, she has revealed the constitution not only of our own sun but even of those distant suns which from their very distance appear to us as twinkling points, thus uniting them all by the ties of family

with our own earth;—reflect on all this, and then say, if the heavens declare less the glory and the righteousness of God now, than they did in the days of the Psalmist.

Take the case of the leaf. Is it less striking as exhibitive of creative wisdom, now that the microscope has revealed its marvellous structure and physiology its marvellous function of building up monarch trees of the forest by absorbing the gaseous carbon of the atmosphere and fixing it in the solid form in the tissues of the parent plant? Indeed, the whole science of Botany has disclosed an inanimate kindom of life, of which the smallest and the greatest units alike reveal wisdom which becomes more and more striking with closer and closer study. Take, again, the anatomy of man and the lower animals. It was of the most superficial description in the days of Galen. What wonders has the microscope brought to our gaze here in our time! Marvellous as the structures of plants are, they appear to be simple things compared with the structures of animals, and the marvel heightens with each step in advance of the scale of life. Each of the two kingdoms, vegetable and animal, presents a plan of progressive design from the lowest to the highest, in which that which most strikes the mind is the Unity that pervades their endless multiplicity and variety, proclaiming in the most definite and certain language, that there must be One Designer for both. Modern biology is not less beautiful and fervent a hymn than was crude anatomy in olden days.

We have seen that astronomy has united all the worlds in one bond of the most intimate family relationship, and we find a similar bond of union running through all living beings, animate and inanimate. The conclusion is irresistible that the whole universe, with its infinity of worlds of matter and life and mind, forms *one* stupendous whole, *one* boundless cosmos, which must own *One* Supreme Intelligence as its Author, Upholder and Governor. How can I describe what must be the influence of this grand conception of the universe as thus presented to us by the light of modern science? The mind totters at the contemplation, becomes utterly overpowered, and falls prostrate in humble adoration. I cannot conceive of any other attitude of mind and body in the Awful Presence. "The thunder rolls," says the bard of the Seasons—

> The thunder rolls: be hush'd the prostrate world;
> While cloud to cloud returns the solemn hymn!

It has been said by another bard that "the undevout astronomer is mad." Verily, can Science now tell all her votaries, verily the

undevout student of nature is mad. For, well has Carlyle through his Teufelsdröckh said: "The man who cannot wonder, who does not habitually wonder (and worship), were he President of innumerable Royal Societies, and carried the whole *Mécanique Celeste* and *Hegel's Philosophy*, and the epitome of all laboratories and observatories with their results, in his single head,—is but a pair of spectacles behind which there is no eye." And on this Dowden has very truly remarked: "What is this but an assertion, justified by the most careful analysis, that the highest truth of science and the highest truth of religion are one, and are both found in the confession of an inscrutable Power manifested to us through all external phenomena, and through our own intellect, affections, conscience, and will?"

I am not unaware that some of the greatest minds,* students of physical science all, have become so bewildered in the very vastness of their study that they have found it impossible to rise from nature to nature's God. And it is most singular that the facts and laws, which rightly understood heighten our conception of the perfection of the Deity, have been turned into arguments against His very existence. The mode of evolution of the solar and inferentially of the whole stellar system, which Kant formulated and which goes by the name

* "The two brothers Humboldt, it is well known, applying each a fine genius to different pursuits, diverged in their convictions with regard to the supreme objects of thought and faith. William, in sympathy with the life of humanity, studious of its expression in language, in literature, in law, and in all the vicissitudes of civilization, never lost the traces of a Divine Government over the world, and even in the superstitions of mankind saw only a barbarous jargon attempting an eternal truth. Alexander, at home in the great Kosmos, familiar with the ways of Nature from her rude Titanic workshops to her finest harmonies of life, significantly declared himself to be of "the religion of all men of science." That his implication of 'all men of science' in his own negative doctrine is far too sweeping,—not less so, indeed, than the Bishop of Oxford's counterpart assertion that 'no men great in science favour Mr. Darwin's hypothesis,'—is evident not only from the older examples of Newton, Boyle, Cuvier, and Davy, but from many of the newest representative names, Oersted, Herschel, Owen, Faraday. Still, there is ample evidence of a certain general tendency in Natural Science to foster habits of thought embarrassing to religious conviction. On a first view, it certainly appears strange that the men most conversant with the Order of the visible universe should soonest suspect it empty of directing Mind; that they should lose their first faith on the very field where natural theology gleans its choicest instances of design, and on the other hand, that humanistic, moral, and historical studies—which first opens the terrible problems of suffering and guilt and contain all the reputed provocatives of denial and despair,—should confirm and enlarge, rather than disturb, the prepossessions of natural piety. The result, however, ceases to be paradoxical, on closer inspection of the relation between physical and moral knowledge."—

JAMES MARTINEAU.

of the nebular hypothesis erroneously ascribed to Laplace; and the mode of evolution of living beings formulated by Darwin; both these hypotheses, which satisfactorily explain the facts and phenomena in their respective domains, and which appear to be substantially correct;—both these hypotheses are looked upon by a certain class of scientists as opposed to the legitimacy of the inference of a Designer from design. The literature of science has been flooded with arguments for and against, and it is impossible to give even a bare summary of them here. I can only give what my own convictions are on the subject. I believe in both hypotheses, and instead of shaking my faith in the existence of the Deity, they have served only to intensify that faith.

[We hope the learned writer of this article will allow us at this stage to state parenthetically the views of that great scientist and philosopher—Mr. Herbert Spencer—who certainly cannot be accused of having any undue partiality for the argument of a Designer from design—on this very subject of nebular hypothesis. Writing so far back as 1868, he saw in theory of organic Evolution, which he has expounded with so much force of thought and wealth of illustration in his later writings, no solution of the problem of existence, but only a process which showed not the origin of things, of Matter, Motion and Force, but only a wider and more generalised conception of how these acted and reached upon each other, producing an organised System—an endless chain of causation. For, writing in the Westminster Review XX. (1868), he pointed out, *with special reference to the great nebular theory which sought to explain the causation of world-life through a process of organic evolution* that "the problem of existence was not resolved by it;" that "it threw no light upon the origin of diffused matter which was supposed to be the elements of creation;" and that "*that hypothesis implied a First Cause.*"]

Darwin himself has admitted "the extreme difficulty or rather impossibility," I quote his own words, "of conceiving this immense and wonderful universe, including man with his capacity of looking far backwards and far into futurity, as the result of blind chance or necessity. When thus reflecting," continues he, "I feel compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man.——But then arises the doubt," he immediately says, very honestly it is true, but betraying in my humble opinion the influence of the idols of the den spoken of above, "can the mind of man, which has, as I fully believe, been developed from a

mind as low as that possessed by the lowest animals, be trusted when it draws such grand conclusions?" I take the liberty to answer this question by the question, why not? The train of reasoning, which must have led the author of the *Origin of Species* to the above argumentative question, was evidently this. The mind of the lowest animal is incapable of drawing conclusions. The mind of man has been developed from a mind as low as that. Therefore, the mind of man cannot be trusted when it draws such grand conclusions as those regarding the existence of the Deity. Darwin does not deny that the mind of man can draw conclusions at all, for what is "his capacity of looking far backward, and far into futurity," but his ability to draw inferences or conclusions regarding the past and the future from present data? *To be consistent, the mind of man ought not to be trusted when it draws any conclusions whatever.* It must be evident that this is a principle which is absolutely unworkable, for its effect would be, if attempted to be worked, to suspend judgment in every matter and paralyse all action. But fortunately nobody does, as nobody can, act upon this principle. Every moment of our lives we are trusting ourselves and others, in other words, the human mind,—in drawing conclusions. And in judging of the accuracy of those conclusions, we do not trouble ourselves with theories as to how the mind originated. All that we have to do, all that we actually do, is to see if the conclusions have been legitimately drawn from sufficient data. Hence, however originated, if it is unquestionable that the mind of man can look far backwards into the past and far forwards into the future, that is, can draw conclusions regarding the past and the future which, however strange and marvellous, are found to wonderfully correspond with the realities of nature, why may it not draw other conclusions, however grand and even startling, which should irresistibly flow from nature's facts? What better proof of the legitimacy of the inference of the existence of a Personal Creator can there be than that, by the very constitution of our being, we "feel *compelled* to look to a First Cause having an intelligent mind in some degree analogous to that of man?" Why then shrink from accepting this grand inference when it satisfies the very necessity of our being, and affords the only solution of the great mystery by which we are surrounded? The grandeur of the inference points to the elevated position man occupies with reference to other animated beings in this world, and ought to fill his heart with gratitude to that Being Who has thus been revealed to him as the Creator of the universe.

MAHENDRA LAL SIRCAR.

MRS. ANNIE BESANT ON HINDU WOMEN.

THE INCARNATION OF SPIRITUAL BEAUTY.

[The following description by Mrs. Besant of the ideal Hindu woman and wife first appeared in the *World* newspaper of America (1894). We are persuaded that the ideas and thoughts contained in her present article ought to find a prominent place in an organ which is intended to be an organ of Higher Eastern and Western Thought, and we accordingly draw the reader's special attention to it.—*Editor, Dawn.*]

Literature can show no grander types of womanhood than are to be found in the great epic poems of India, types sketched in by master hands from noble models, and writing in a few heroic figures all that is at once strongest and sweetest, most lofty and most devoted in humanity. *Sita*, the wife of Rama, who follows her beloved to the forest when he is exiled from throne and country, who lives there contentedly by his side, bringing into the hut of the forester all the grace and beauty of the court; who, torn away from his side by force, keeps her faith unsullied and her courage undaunted through severest trials and even in face of death; who, her chastity assailed by unworthy suspicions, meets accusation with a dignity that is austere, endurant, gentle: never was more heroic figure limned by men than the *Sita* of Valmiki. And *Savitri*, who wrenched her husband from the icy grip of death. And *Sakuntala*, who, according to Goethe, is the one whose name we utter to express all that is best in womanhood. And Kausalya, ideal mother. And—but I might run through a long list of names, and not exhaust the wealth of noble women that India has borne to the race. In those days, the Aryan woman was free, dignified, strong: she stood beside her husband at the altar, for without her, he could not discharge his priestly duties in the home; she stood beside him in life, through death, in the gladder life beyond; she was not separable from him, but a part of his very self.

Now, in old days, as in modern times, the Hindu ideal of man and woman, and of their mutual relation, was wholly different from that of the West, and in many points would be repellent to the latter; yet, unless it be understood, even if disapproved, the life of India will remain for ever unintelligible. Equality, as understood in the West, has no place in India—in the family, in society, in the nation. The human being is not regarded as the possessor of certain rights to be asserted against all comers, but as the servant of certain duties to be discharged to the fullest. No failure of duty on the

part of another sets men or women free from the faithful discharge of their duties to the offenders, and the great law does not ask of each, "How have those to whom you are bound performed their duties to you?" but: "How have you performed the duties laid upon you in your position in life?" The great law unerringly smites the offender, be he high or low, but it never accepts as an excuse for one man's fault that the one he has wronged, had before wronged him. This general conception of the orderly nature of human life, as an organism in which each unit has its function, governs inevitably the relations of the sexes, as of all groups of individuals. In India, the question of woman's rights has no more arisen than the question of man's rights; discussions on the liberties, the mental equality, the right to independence of women would be laughed at by men and women alike. "What is a woman's duty?" is the question. Only mind you, dear American reader, the question is asked equally as to the man.

The girl-child has a sheltered happy life in the family home, where several generations dwell together, grand-parents, parents, children—the "parents," perhaps, being two or three brothers, with their wives. For the young man, in India, does not leave the family nest on marriage, but brings his wife into it, and marriage loosens no family bonds, as in the West, but merely brings into the family a new member. Sometimes the girl-child is betrothed very early—as among European royalties—and is educated in accord with the wishes of the family that is to be hers in the future, and with regard to her future position. In any case, she is trained in religious knowledge, becomes familiar with the sacred books of Hinduism—with the exception of the Vedas—and is well grounded in the deep principles, the understanding of which renders life intelligible. She is, generally, also a skilful cook and clever needlewoman. But the enormous majority learn orally all that they know, and can neither read nor write. This oral teaching has, from time immemorial, prevailed in India, and all that is most valuable has thus been taught. Boys sit around their teacher and repeat over and over again the phrase he has recited for their learning, and men may be found who know the Vedas with marvellous accuracy, but who cannot read. They commit to memory, and then brood over what they have learned, deepening knowledge into wisdom. Naturally women have been taught in the same way, and the conversation of the home has told more in their case than in that of men. It is true that a very rapidly increasing minority do now acquire these instruments of

knowledge, and schools for girls are springing up in different parts of the country, in which education on more Western lines is being given.

Thus, in Calcutta, I visited a school in which 200 Brahmana girls are being taught Sanskrit, English reading, writing, arithmetic, &c. A saintly Indian lady—a learned Sanskritist and master of seven languages—is at the head, and she is assisted by a small staff of competent Brahmana teachers. In Mysore, the Indian ruler supported by his ministers, is making great exertions to open schools for girls, and in other parts of Hindustan, under both Indian and British rule, similar efforts are being made. The Parsis in Bombay are doing good work in this direction. The fact, however, that I wish to emphasise, is that an Indian woman may be very highly cultured, with a mind stored with religious and literary knowledge, and yet be unable to read or write. I have mentioned above the exclusion of women from the study of the Vedas. This is not a restriction of the most ancient times, but it is found in Manu, the recognized legal authority. It is not, however, applied to all women, for those who show special capacity may be thus instructed. Some of the Vedic hymns, indeed, are ascribed to female authors, and the names of celebrated women have come down to us who took part in assemblies of Brahmanas, and discussed the abstrusest points of metaphysics without any sex impediment being placed in the way. So, also, women embrace the ascetic life, and become great Yogis, reverenced by all, and the proud Brahmanas will touch the feet of a woman teacher who shows knowledge of spiritual truth and power to impart it.

When the girl is betrothed in infancy or childhood—a custom, let me say in passing, which cannot be justified by any appeal to the Hindu scriptures or to antiquity, and which has grown up gradually, being probably largely due to an anxiety on the part of fathers to secure a protector for their daughters in troublous and unsettled times—she passes to her husband's home after puberty, and is in charge of his mother, whom she is then to regard as her own. She is taught to love, serve, obey her husband in all things; to her, he is to be as a god. And here comes in the general principle spoken of above; *his* faults do not excuse any failure in *her* duty; she is taught to be the ideal wife, whether or not he be the ideal husband, and though both continually fail, the ideal is still taught and recognized. Through the husband come to the wife all the blessings of the gods while her devotion and piety keep firm the foundations

of the home. Heavy is the penalty that falls on him who neglects his wife, who is unfaithful to her, who treats her with aught but tenderness; but *she* must remain faithful, however dutiless *he* may be. "In that family where the husband is pleased with his wife, and the wife with her husband, happiness will assuredly be lasting." (Manu iii., 60).

If the wife deifies her husband, as mother she is deified in her turn. The son is bidden worship his mother, and in everything, he must consult her, and avoid giving her pain. She is bracketed with the father, and the spiritual teacher sometimes put above them and "all duties have been fulfilled by him who honours these three; but to him who honours them not, all rights remain fruitless." (Manu xi. 234.) The mother rules the household with absolute authority, save as it may be tempered by the grandmother, and there is no appeal from their will. The orthodox Hindu bows to these women, who have over him the sacred authority of parentage, and will rather face serious personal sacrifice than cross their wish. Very clearly on the general question of the position of woman speaks our Manu: "Women must be honoured and adorned by their fathers, brothers, husbands and brothers-in-law who desire welfare. Where women are honoured there the gods are pleased; but where they are not honoured, no sacred rite yields rewards. Where the female relations live in grief, the family soon wholly perishes; but that family where they are not unhappy, ever prospers. The houses in which female relations not being duly honoured, pronounce a curse, perish completely, as if destroyed by magic," (iii., 55-58).

This closeness and sacredness of family ties may render partly intelligible the horror felt by Hindus, men and women, alike, about the idea of widow-marriage. The maiden given in marriage, becomes a a member of the family to which her husband belongs; she bears children into it, and becomes to them an incarnate goddess, presiding in the sanctuary of the home. The husband dies, but she is still a part of him, daughter of his parents, mother of his children, a stone in the family house,—shall she be wrenched out thence to be built into another household, loosening all the other stones, shattering the family altar? Not only is this so as regards the family, but also as regards the husband; for he is not dead, he has only put off his body, and he must be served with due rites on the other side of death. The marriage union is of souls and spirits, as well as of bodies; as well remarry when the husband goes a journey on this earth as when he travels onward to the land beyond the grave. It is sacrilege, it is

adultery. It makes marriage a commercial contract, a union of bodies only, as well as disintegrating the sacred life of the family, which is the dearest pride of the Hindu.

It may be said that this view is not enforced on men; they may re-marry. That is so, for the man in re-marrying does not dislocate the family, but only brings into it another member. No tie is broken, either to ancestors or to children, all remains intact. Nor is the union with the first wife regarded as broken by the second marriage, and both will dwell happily "in the heavenly places" with him they love. Nor does it apply to the marriage of virgin-widows, that have been betrothed or wedded in childhood, but have never passed into the family circle of the new home. We, therefore, find that many Hindus who stand stoutly against a second marriage for a woman who has lived with her husband are prepared to accept the marriage of virgin widows. The strictest Hindus oppose it, partly as lessening the sacredness of marriage by reducing it to a mere physical union, and partly from the ubiquitous fear of "the thin end of the wedge." Probably, the easiest way out of the difficulty would be to get rid of child-marriage, and so of virgin-widows.

For, the lot of the child-widow is hard. As things are, exceptional natures, who see beyond physical things, will accept such a lot not joyously, but not unwillingly, and will consecrate themselves to a life of service and tender devotion, becoming the veritable "angels of the home," reverenced and beloved. I have two women in my mind now, exquisite types of gentle dignity and serenity, with faces divinely pure and compassionate. But, taking the ordinary run of Hindu girls, they are not fit for this self-less life of ministration, and they fret sometimes against the enforced austerity, for which they are not ripe. The Hindu ideal of marriage is pitched too high for the modern Hindu, man or woman, and with the failure of marriage, re-marriage becomes less disastrous.

Trying to give a general idea of the fundamental position of the Hindu woman, I have left myself no space to deal with the variations, introduced by local customs and traditions, such as the zenana system of the North and the freedom of the South. Yet on ideas, founded on the northern system, many criticisms are based, which are not applicable to the general question.

It may be asked whether the Hindu type of womanhood is one that it is desirable to spread among Western nations. The answer may bluntly be made that such spreading is impossible. That

delicate, gracious sweet and tender type, with its gentle courtesy, its serene dignity, could not endure in the rush of Western life, and the self-assertiveness of Western civilization. One might as well picture *Savitri* in a divorce court, or *Sita* suing the cobbler for damages in a libel suit. Leave the Hindu woman untouched by Western thought, and do not destroy a type which, just because it is unique, would leave less full by its disappearance the chord of humanity. We have women enough, who are brilliantly intellectual and competent; let us leave unmarred the one type which is the incarnation of spiritual beauty.

ANNIE BESANT.

FROM THE LIPS OF A SAINT.—VIII.

(RENDERED INTO ENGLISH.)

The Spiritual Character of work in all Organic Life.

(Concluded from p. 183, Vol. III.)

Just as the boat, which is fast bound to an anchor, cannot advance a single step however-much the boatman rows, but remains in the same position throughout; so however-much you work, you will not be able to reap any fruit of your labour, will not be able to advance a bit in the way of your realisation of the goal of all life, if you are bound down to an object of sense-gratification. The moment, however, one enters upon the way to Life's true aim and end,—Life's goal;—the moment, indeed, that takes him to his Mother—it is then and then alone that one feels his full strength. For so long as the Supreme Self makes not felt Its presence to the individual self, whence will be that Beauty that will bautify the individual self? Whence will come the splendour of the moon so long as the rays of the Sun do not reach the moon? The moon dispels the gloom of the earth when she shines with the rays that the sun lends to the moon: so also is the individual self able to dispel the darkness of earth's life when the Supreme Self reaches Its rays to it.

So long as the aim or the goal of all life be not definitely ascertained man uselessly wastes his life, drawn away hither and thither by different objects of attraction. No man can lead a truly religious life so long as he does not know what Life's goal is. So long as religion is not fixed upon as the life's goal, I would one day say religious truths, and unsay them on the next; so also, that which is the present stage of my life would also be the same in future. The boat, bound to an

anchor, will not move an inch forward through rowed, by ten hands; similarly, however-much I may work with the ten senses, I shall not advance a single step in the way of Life's progress if I am attached to anything else than the Supreme Ruler of the Universe. The boatman whose boat sails forward enjoys himself in whatever way he likes, *e.g.*, smoking tobacco, &c.; similarly, whoso has his life moving God-ward enjoys the serene bliss of contentment in doing the work of God. How must I know, when going by a boat from Calcutta to Santipur, for instance, that the boat is moving towards its destination? Why, all the objects on either side of the river, all the villages will first come into view and then be left behind one by one, and so shall the boat reach Santipur. But if the scene does not change, if the villages on the way do not appear at all, but on the contrary, the scene of Calcutta repeatedly comes into view, then do I understand that the boat does not move forward towards its destination.

In the same way does the man whose life moves along the road of religion or righteousness always experience with pleasure different stages of improvement—attain wisdom, love and purity. But if instead of these different states, there doth continue the same state of the soul,—if, for instance, I should continue to tell lies as before, to envy others as before, to look at women with the same eye of lust as I was wont to do before—then, indeed, am I not advancing by ever so little towards the goal of life, then am I not gaining by ever so little in religion. I am in the habit of invoking the Deity, singing hymns in praise of Him, performing good deeds and even deriving pleasure therefrom, but if my soul continues to be in the same state—if my soul does not rise out of falsehood to Truth, out of envy and jealousy to an all-embracing love, out of the slough of sin into the region of sanctity —why, then, indeed, my pleasure is not of the nature of the eternal bliss derived from Brahman-hood but a momentary joy, a mere pleasurable sentiment like that derived from a study of poetry or drama. In such state should I know that Life's Goal is not yet to me ascertained. If I notice that I cannot love others as much as I love my own children, then must I know that the vessel of my life has got clogged somewhere—does not sail forward towards the destined Goal.

A thousand alluring objects may come into my view on the way, but I must not forget that I have to go to my Mother—my home. *He* is sure to advance to whom Life's Goal is definitely settled.

The spiritual teachers of ancient days did not impart any reli-

gious instruction to one to whom Life's aim was not definitely settled. On being asked for religious instruction by two fishermen who were very fond of good nets, Jesus Christ said: "If you can throw away those finely woven nets I may then impart to you religious instruction." Again, a certain nobleman with a full sense of his own position in society came to see Jesus Christ everyday at night lest he should degrade himself in the eyes of the aristocracy. When he asked Jesus for religious teaching, Jesus said: "That cannot be for you." A *Brahmana* having begged alms of *Sanatana Gosvami*, the *Gosvami* gave the *Brahmana* what is called the philosopher's stone. At this the *Brahmana* thought within himself thus: "the *Gosvami* would not have been able to part with that valuable stone unless he was in possession of more precious objects still." He then said to the *Gosvami*: "Sire, what precious gem dost thou possess that makes this stone of thine so insignificant in thy eyes? Deign therefore to bestow upon me that precious gem." The *Gosvami* answered: "O thou *Brahmana*, if thou canst throw away into the waters of the *Jamuna* that stone which is held by thy hand, then could I bestow upon thee that precious gem."

As soon as this was said the *Brahmana* threw into the waters the stone he held in his hand and the *Gosvami* also soon initiated him in religion. The purport of all this is simply this;—unless the Goal of Life is to any man definitely fixed, he cannot walk the paths of religion. Without a thirst for reaching the goal, one does not by a mere performance of religious deeds appreciate the force of religion. For this reason, the spiritual teachers of old prepared the (inner) soil prior to sowing seeds (of religion).

'I am not to live for ever in this world—this world is not my permanent abode. In the next world, by whose support am I to maintain myself through eternity?'—without thoughts like these the spirit of renunciation won't grow. If, indeed, the Supreme Ruler—the All-truthful, the All-beautiful, the All-benevolent Deity—is to me the Object of Life, I may not then remain contented without having Him. All the good things of life may not then satisfy my desires. If in exchange for all that this life affords I could gain Him—if in exchange for the perishable I can obtain the Imperishable, Eternal One—then surely is there not a more skilled merchant than myself.

There is the well-known saying: "युवैव धर्मशीलः स्यात्,"—religious culture should begin from our very childhood. Those who do not believe in the truth of this saying have failed to understand the end

of religion, the goal of human life. First of all, we are to understand the purpose which the body and mind are intended to fulfil, and to make the body equal to it; then, to understand the purpose of the individual soul,—which is the development of true knowledge or wisdom. And so associating the wisdom with all our activities after entrance into the world, we are to carry out God's purposes in order to reach that All-truthful, All-beneficent, All-beautiful Object, our Life's aim. The world is like a river and the human life is the boat, every work corresponding to an oar, while God is the Destined Goal. Thus, as in arriving at Santipur from Calcutta we see that all those that started from Calcutta—be they rich men, or be they poor coolies—have reached Santipur, though some might have done so by steamers, some by large vessels, some by small boats and canoes: similarly, on reaching the Goal of man's life or the Supreme Ruler of the Universe—it is seen that all have reached the same Destination though by various different ways—some, for instance, by religious preaching, some also by the honest work of a coolie. Those who have attained salvation,—have reached the Goal for Life will perceive that, whether great or small, Sadhus, or Day-labourers, all are in the lap of the Great Mother of the Universe. They will see them in Her lap, be they in this world or be they in the next. One may reach this Life's Goal while in this life and may from here see the next; while one who has reached the Goal while in the next, may also see this. That Goal is all contentment. In her lap are Englishmen, Christians, Mussulmans and Brahmanas. In her, shine many a saint and ascetic, many a *faquir* (a Mussulman ascetic), Jesus Christ, Nanak and every other saint. Without Her there is none other Object on which we could set our aim. To reach this Goal we have to march forward everyday: and if we can advance everyday, then could we reach our Destination, from whence should arise the sounds of supreme contentment and our lives will be One honeyed Bliss.

RADHAKUMUD MUKERJEE.

THE SECRET OF LONG LIFE.—II.

[*Continued from page 21, Vol. V.*]

In the September number of this Magazine appeared an article from the pen of John F. Morgan of Chicago on the subject of 'The Secret of Long Life.' The substance of his very interesting and suggestive and stimulating discourse we can once more give in his own words concluding his article. "We have wasted too much time

in the past in looking everywhere outside of ourselves for it, and *the secret of life is to be found in breath and the control of thought, because thought is* like God *creative*; we create our conditions and environment by the power and kind of thought we entertain. As man thinketh, so is he." "When we become masters of ourselves and all that surrounds us," says the same authority, "the elasticity of the body and the clearness of the mind, the strength of the memory that follow the continuance of these exercises"—(breathing and concentration-exercises) "are declared to be beyond credibility, and the poise and comfort that succeed more than repay those who understandingly practise them." (*P. 21, Vol. V. of this journal*).

It is not easily understood how "correct breathing" has anything to do with the prolongation of life, and what part concentration-exercises play in relation to that question. It is not our purpose here to deal with it in any scientifically exhaustive manner; *that* we would leave to the care of J. F. Morgan of Chicago, the writer of the original article; but we are prompted to say one or two words on the subject in response to a call from an esteemed friend who is a regular reader of this magazine and values it very much. He desires us also to draw Mr. Morgan's attention to some difficulties which he has found in understanding the original article,—and these will be found below.*

Our friend raises one important question, namely, that the question of *correct breathing* must be discussed and tested from the theoretical as well as the experimental standpoints and he would very much wish that the results of actual experiments in breathing-exercises were made known in an authoritative manner. We hope Mr. Morgan would be able to satisfy our correspondent on the point. In the meantime, we would desire to draw our correspondent's attention to the following declaration from Mr. V. Viraraghava Chari in the well-known *Hindu*

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* (1) Are the "twelve lessons" mentioned by Mr. Morgan as taught to certain pupils available to the Indian public—and at what cost?

(2) Full explanation of the following words and expressions:—

(a) "The will-power is represented in the thumb."

(b) "Correct breathing is the most important step toward *consciousness of life.*"

(c) "Individual breath"; "brain breath"; "applied breath"; "Mother earth-breath"

(d) "Magnetic circles of individuality"; "Magnets of organic existence"; "normalising or centralising the cellular tissue"; "to polarise every atom of the entire system"; "because of the centralised sense condition resulting in common sense."

(3) "Our rooms should be decorated with colours that harmonise with our different temperaments." How is the thing to be done?

newspaper of Madras (1898) on the subject of the Indian Process of Breath-regulation and its curative effects. Says he—"*Pranayamam* is the process of suppressing breath practised by Brahmanas just before doing their daily prayers, &c. The breath is suppressed with the utterance of some mantrams. It is believed that this is enjoined by the ancient *Rishis* as a sort of cleaning process preparatory to uttering any sacred mantram. It is said that various are the virtues possessed by such a process, chiefest of them being the curing of diseases, specially heart-complaints. Many able lectures have also been delivered on this subject. I was for several years suffering from a cough of the worst type. I tried various medicines but all to no purpose. I was getting worse day by day, and sometimes I even vomited blood. Several of the experienced native physicians whom I consulted pronounced the disease incurable. There was, therefore, no hope of recovery. One night while pondering over my sad fate in a half-reclining posture (I could not lie down for fear of coughing) a thought struck me of *pranayamam* and its effect on diseases. I immediately sat down to try it, and actually did so for an hour and a half. What was my surprise to see myself greatly relieved! Indeed, it was the first time I ever felt any relief whatever after a prolonged suffering of more than three long years. During the remainder of the night I had very sound sleep. Encouraged by this step, I repeated the same process on only two successive nights, and my readers will not, perhaps, believe me if I say I was completely relieved of this fell disease on the third day. I was thus by a simple process completely cured of a disease in three short days, which the skill of several physicians could not even partly remove in three long years. I have also successfully tried this process in the case of fever, dyspepsia and other complaints. The process, however, appears to have instant effect on heart-complaints. Any Brahman (I say Brahman because other castes are not initiated into the process) may try it and I feel sure he will not be able to falsify my statement. I now give publicity to this in the belief that it may do some good to the public." [*Vide* also *Dawn*, Vol. II., p. 224.] So far, for the experimental side of the question. Now to the scientific theory of the subject so far as seems to us to be at least sufficiently plausible. We will first of all refer our readers to certain physiological facts which we take from that well-known English scientific Journal—"*Pharmaceutical Products.*" The first and most important fact that it is necessary to remember in discussing the question of the importance or otherwise of any process of Breath-regulation in its curative aspects is this—*that worry kills.* "Modern Science,"

says the journal to which we have referred, "has brought to light nothing more curiously interesting than the fact that worry will kill. More remarkable still, it has been able to determine, from recent discoveries, just how worry does kill." "It is believed by many scientists," continues the same authority, "who have followed most carefully the growth of the science of brain-diseases, that scores of the deaths set down to other causes are due to worry, and that alone. The theory is a simple one—so simple that any one can readily understand it. Briefly put, it amounts to this: Worry injures beyond repair certain cells of the brain; and the brain being the nutritive centre of the body, the other organs become gradually injured, and when some disease of these organs, or a combination of them, arises, death finally ensues." Again—"Thus does worry kill. Worry is an irritant at certain points which produce little harm if it comes at intervals or irregularly. Occasional worrying of the system the brain can cope with, but the iteration and re-iteration of one idea of a disquieting sort the cells of the brain are not proof against. It is as if the skull were laid bare and the surface of the brain struck lightly with a hammer every few seconds, with mechanical precision, with never a sign of a let-up or a failure of the stroke. Just in this way does the annoying idea, the maddening thought that will not be done away with, strike or fall upon certain nerve-cells, never ceasing and week by week diminishing the vitality of these delicate organisms that are so minute that they can only be seen under the microscope. [See also *Dawn* Vol. I., pp. 285—6.] Here, then, is ample evidence for us to see how irritating, continually acting thoughts and feelings—which go by the name of cares, anxiety, or worry, have the effect of injuring certain brain-cells which lead to the gradual deterioration of the cells of the other organs of the body. Writes Mr. Edward Carpenter of Chicago in a work which we reviewed some time ago—"That a man should be a prey to any thought that chances to take possession of his mind, is commonly among us assumed as unavoidable. It may be a matter of regret that he should be kept awake all night from anxiety as to the issue of a law suit on the morrow, but that he should have the power of determining whether he be kept awake or not seems to be an extravagant demand. Yet this is an absurd position—for man the heir of all the ages, to be in-hag-ridden by the flimsy creatures of his own brain. If a pebble in our boots torments us we expel it. We take off the boot and shake it out. And once the matter is fairly understood it is just as easy to expel an intruding and obnoxious thought from the mind. About this

there ought to be no mistake, no two opinions. The thing is obvious, clear, and unmistakable. It should be as easy to expel an obnoxious thought from your mind as it is to shake a stone out of your shoe; and till a man can do that, it is just nonsense to talk about his ascendency over Nature, and all the rest of it. He is a mere slave and a prey to the bat-winged phantoms that flit through the corridors of his own brain. Yet the weary and care-worn faces that we meet by thousands, even among the affluent classes of civilisation, testify only too clearly how seldom this mastery is obtained. How rare indeed to meet a *man*! How common rather to discover a creature hounded on by tyrant thoughts (or cares or desires), cowering, wincing under the lash—or perchance priding himself to run merrily in obedience to a driver that rattles the reins and persuades him that he is free."

The reader will have recognised by this time two most important facts—*first*, that tyrant thoughts—cares or desires enslave so many who regard themselves as *free* agents: and *secondly*, these over-mastering cares and thoughts—as worry—kills—*i.e.*, "injure certain cells of the brain and through them injure and paralyse certain other cells"—*i.e.*, the cells of the other organs of the body. In an address delivered by Edward R. Sander, M. D., of Philadelphia before a learned Medical Society and reprinted in the June, 1901, number of the Calcutta Journal of Medicine, edited by our distinguished countryman—Mahendralal Sircar, M. D., D. L., C. I. E., we find the following statements: "All therapeutic measures of any description whatsoever, called by whatever name, are dependent for their action, for good or ill, *upon their power to influence the function of the cell.* Analysis will show this proposition to be the quintessence of common sense. If this self-evident proposition be accepted, it follows that, in the very nature of things, there are many ways in which the function of cells can be altered. No one here, I am sure, will tell me that I cannot modify the cells composing the end of my finger in a hundred ways—by heat, by light, by cold, by water, by drugs, by electricity, by the knife, by pressure, by relaxation, by muscular movement. If this be true of the cells of the end of my finger, it is equally true of every individual cell and of aggregation of cells in my body. *All therapeutic measures depend for their efficacy upon their ability to modify cell-functions.*"

The last sentence at once shows that the secret of longevity lies in our ability to modify the cell-functions when they have become abnormal, have got out-of-order, deranged, diseased. And when *worry* kills, it kills as we have seen, "by injuring certain *cells* of the brain beyond repair,

and the brain being the nutritive centre of the body, the other organs become gradually injured, and when some disease of these organs, or a combination of them arises, death finally ensues" (*see* p. 93, ante). So that it is necessary to know "every possible way of *modifying cell-function* that has ever been taught or that will be taught in the future." We may consider the body first as a unit, then as a collection of organs, then as an aggregation of minute cells, and lastly, as a system of microscopic molecules. And one of the methods by which cell-functions are modified is the agency of thought or feelings. The muscles become tense under the power of a sudden emotion; they are relaxed and expanded in a state of repose. Witness also the case of the child whose muscles are moved quickly and easily without stiffness and other restrictions; and while the muscles are active the health is generally good. Witness also the opposite case of an old man who has had to bear the weight of years and of cankering cares and sorrows—in whose system partial ossification has taken place, the cell-functions have become diseased, and the currents of the body can no longer circulate freely. Evidently, then, the subtler forces of thought or feeling act on living matter—the cell modifying its functions. Says the well-known American writer Horatio W. Dresser in his "*Power of Silence*" (p. 180)—"The instance is related of a student in the University of Leipsic who was in such an intense state of *nervous strain* that the students and professors were much alarmed at his condition. By some good advice he took up the habit of sitting quietly by himself for about fifteen minutes each day, in absolute silence, maintaining as nearly as possible, a state of perfect composure and muscular rest, banishing all thought and all activity. In a short time he made a very perceptible improvement, and finally recovered his health. The mere effort of maintaining an easy, relaxed state of mind and body had relieved him of the inward pressure."

In the above case there was "nervous strain," *i.e.*, the nerve-cells were in a state of tension, had become abnormal in their functions, or were unable to perform their natural, normal, free functions. The cure was in bringing a particular altered state of the mind and body—"a state of composure and perfect rest" to bear upon the disease. So that *one way* of curing the suffering *by modifying the cell-functions* to remove the "strain," is to make the sufferer brood less on the suffering, is to restore confidence, to allay fear. Whatever be the method employed, surgical, electrical, dietetic, hygienic, chemical or what not—the use of physical remedies, prayer, foreign travel, &c., &c., —anything that arouses the confidence, the interest, or even the credulity of the sufferer, will produce the same result, the same necessary *modification of cell-function*. Such modification of cell-function could and has also been effected through the power of *music*. Dr. Wilkins in the "*Progressive Thinker*," (see also *Dawn* Vol. II., p. 186), testifies to the following effect: "Numerous cases of violent mania have been repeatedly soothed into quietness after all other means have been exhausted. Many people on more than one occasion, when in a state of extreme nervous irritability, have been tranquillised by the notes, which seemed to exactly touch the sore or tender spot with a soothing and healing influence. A sympathetic harmony executed by a master has frequently brought tears and sighs of relief to the suffering and sorrowful with *nerves strained* to the utmost. Many instances are recorded where a death-

like nervous sleep has been terminated and the sleeper reclaimed to sense and feeling by the tones of that king of instruments—the violin. On the contrary, the proper use of the same instrument with its mellow music, soft, low and caressing, has lulled to sleep thousands of people who have suffered from sleep or insomnia, either as a result of pain or nervous excitability." And then the learned doctor explains that this action of music is twofold—first, mental or psychical—" it diverts the mind outside of the patient's personality;" and then physical, " by its soothing, monotonous, repeated tones, lulls the nerves to that quiet, refreshing rest, found only in sleep." And he goes on to declare that " music has not alone this direct action, but experiment has shown that *by the loosening of the tension or strain upon the nerves*, the blood-vessels receive healthful stimulation, causing the blood to circulate more rapidly, removing congestion of the brain and nervous centres and increasing nutrition of the whole body, *thus giving an impetus to recovery* which could not be readily obtained by other means."

We are in a position now to understand the rationale of the Hindu process of Breath-regulation technically known as *pranayamam* as also its curative effects. The process of regulation is always accompanied by the utterance of some mantrams or sacred sounds. The repeated and persevering utterance of the mantram has a three-fold function—first it tends to divert the mind outside of one's outside personality—the thousand and one distractions that continually act on the mind and fritter away the nerves and act injuriously on the cells. This is the negative and not the least important of the effects. Then, there is the *positive effect*. For the mantram has a meaning, gives in short the philosophy or part of the Hindu's philosophy touching man's or the universe's vital relation to the Highest Being; and concentration of the mind on the mantram *and* the meaning not only releases the mind of much of the tension or strain that ordinarily and necesarily bears upon it, but it positively lifts or seeks to lift the man on to the serener heights of the Spirit where, to adapt Tennyson, the Man-in-God becomes one with the God-in-man. One escapes into a larger life, out of this narrow and narrowing sphere of consciousness—of worldly out-going and rebellious thoughts and emotions which work havoc among the nerves and the brain-cells and shorten life and happiness. Concentration on the mantram *and* the meaning unites the lower self with the higher, the man with his Maker, by freeing man from the thraldom of any thoughts and feelings that chance to take possession of his mind. The Higher Self is always with us, but it is shut out. We are momentarily disconnected with it and unaware of its promptings. For our personal or lower self and will stand in the way. The human worldly will—the will of the lower man in us, fear and all sorts of cramping and narrowing notions, opinions and views have intruded leaving the Spirit stand outside, so to speak, although in reality within us, and on all sides of us, immanent, omnipresent, infinite. To stifle the active limited, personal self and to let the Real Self have us, to stand aside completely and let us the Spirit overwhelm us and fill us on every side—this, indeed, and none other is concentration on the *mantram and the meaning* intended to effect in its completest, final aspect.

EDITOR.

Uttarpara
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THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः ।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

WHOLE No. LII. | CALCUTTA, NOVEMBER, 1901. | No. 4. VOL. V.

METHODS OF TRAINING OF YOUTHS IN ANCIENT INDIA -IV.

[*Continued from page 44, Vol V.*]

In our discourse on the method of teaching in ancient India in the days of the Rishis of old, we had occasion to quote a large number of sayings (and we might have done so more abundantly if it were really necessary) in support of our statements. A little thought upon the subject-matter of those sayings will lead every impartial mind to the conclusion that the aims and methods of teachings of ancient India were widely different from those of modern India; that while the aim of modern teaching is at improvement in this life, that of ancient teaching was at improvement in the life to come, the development of the soul, through the perfection of disciplined life here on earth. The horizon of modern educated life is much limited, the extreme limit being placed by death; that of ancient education was unlimited, extending beyond death itself which was not considered as its ultimate limit. The basis of modern education is the disbelief in immortality; while upon a solid faith in it, was based the teaching of ancient India.

It may be said, however, that while ancient teaching aimed at spiritual improvement in the life to come it hardly neglected it in this life. For it was an established truth with the ancient Rishis that the former was never possible without the latter. But the ancient teachers took great care that their pupils should not take to a course of self-improvement which might hinder their spiritual improvement in the life to come.

As the sage Manu has said :—

कामात्मता न प्रशस्ता नचैवेहास्त्यकामता ।
काम्यश्च वेदाधिगमः कर्मयोगश्च वैदिकः ॥

[Translation :—An exclusive attention to self is not proper, nor is the annihilation of self possible ;—thus, the study of the Vedas and the performance of the acts enjoined by the Vedas are but for the self.]

The seeds of faith and knowledge sown in the tender hearts of young sons of ancient India prior to or on the eve of their entering the household life enrooted themselves in the forms of a universal brotherhood and reverence for worth, and burst forth into the main trunk in the qualities of dutifulness, patience under pains, sincerity in conduct, love of truth and self-sacrifice; while the branches were formed by such numerous subsidiary qualities as philanthropy, charity, an irresistible desire for self-amelioration, &c. It was of such a mighty tree decked with such branches that Religion, worldly prosperity, fatherhood and salvation (धर्मार्थकाममोक्ष) formed the fruits.

In days of yore, every parent had to send in his or her sons from their very childhood to the house of the Preceptor with a view to put them in the way of possession of the aforesaid four fruits or ends of human life. No father shrank in the least from drawing away the infant son from the lap of the affectionate mother as soon as he could live without the milk of her breast, and place him under the stringent rules of the ब्रह्मचर्य life in the preceptor's house: while into the testing fires of this rigid life under the preceptor the all-affectionate mother cheerfully flung the milk-fed young ones of her heart with a regard for the great holy aim of human life.

Before walking the difficult path of household life suited only to those who have subdued their senses—in which every inch of ground is to be contested with the six hostile passions (रिपु) besetting human nature, *viz.*, lust, anger, avarice, ignorance, pride, and envy—in which the traveller has to march onward even with his feet bruised with the thorns of danger occurring at every step—in which his loins begin to give way under the heavy burden of eternal duty—before walking the rugged path of household life, if the student has not tasted of any pain, has not learnt fully the several means of subduing the six passions such as avarice, &c., has not learnt to save himself from the ever-injurious suggestions of the senses by the practice of ब्रह्मचर्य which alone can give the power of endurance,—how should such a person, the ancients thought, be able to

realise the ends of the sacred household life which would then too suddenly come upon him? With *this* thought in their minds about the future life of their son, the parents looked after his education; whilst also, the teachers with a careful eye upon these great ends of education framed the proper rules and principles and they enforced them on their young pupils.

It is perhaps impossible to determine accurately the time when these rules and principles of education were first promulgated, and how long they were received and observed by our old Hindu Society: but the Vedas and all subsequent compositions down to the poetical works of poets of the age of Dandi (दण्डी) all testify to the prevalence of this system of education. Thus, we find in the first part (खण्ड) of the sixth chapter of छान्दोग्य Upanishad.

"श्वेतकेतुर्हारुणेय आस तं ह पितोवाच श्वेतकेतो वस ब्रह्मचर्यं नावै सोम्य अस्मत् कुलीनोऽननूच्य ब्रह्मबन्धुरिवभवतीति ।१। स ह द्वादशवर्ष उपेत्य चतुर्विंशतिवर्षः सर्व्वान् वेदानधीत्य" इत्यादि ।

[Translation:—Aruni (आरुणि) had a son named Svetaketu (श्वेतकेतु) to whom he said: "Well, my boy, do thou stay in the house of the family preceptor and practise ब्रह्मचर्य to acquire knowledge; a son of our family who fails to do this is not counted as a relative of Brahmans. In obedience to this command of his father's, Svetaketu, then only twelve years old, went to the house of the Preceptor and lived there for twelve years. Then he returned as a young man of 24 years versed in all the Vedas.]

A perusal of this portion of the छान्दोग्य Upanishad makes it evident that about the age of that work a long stay with the preceptor, the practice of ब्रह्मचर्य and a study of all the Vedas were regarded as inviolable social rules, so that the non-observance of them by any one led to his excommunication from society. The age of the Vedas was followed by that of the Samhitas and the Puranas. In that age also was fairly prevalent this system of teaching, as is amply evidenced from the numerous passages we had occasion to quote in our last article from the Religious Samhitas and the Puranas.

The rise of Buddhism brought about changes in this ancient method of teaching. In old Hindu Society education was not open to all; except the Brahmanas, Kshetriyas and Vaisyas, no other class was permitted to study the Vedas and their angas. But with the rise of Buddhism all rules and regulations, all preliminary and necessary tests for entrance into the temple of knowledge were dispensed with and whoever chose could enter it. It was just as

if everybody who wished to enter the modern University were allowed to enrol himself as a member; it was just as if everybody who thought that he was in his opinion fully competent to pursue any particular course of studies, high or low, were able to satisfy his particular wishes. A sort of revolution as distinguished from evolution was introduced on the abstract ground of equal opportunities for all, on the principle that all were equally fit and able. Thus, before the rise of Buddhism the young Brahmachari, with his ब्रह्मचर्य्य unsullied, unlearned in the affairs of the world, lived with his Preceptor to acquire knowledge; and then, the period of probation over, in the full bloom of youth entered upon the householder's life. But the Buddhist reformers broke even this rule.

Side by side with this revolution in the eligibility for knowledge, Buddhism wrought a sweeping change in the subjects of study. Before the advent of Buddhism these were the Sanhitás, Brahmanas, Kalpasutras, Chhanda (छन्द,) Nirukta (निरुक्त,) Jyotis (ज्योतिष,) Vyakarana (Grammar), Mimamsa, &c. Buddhism rose as a revolt against the authority of the Vedas, so that the Buddhist Reformers first abolished the study of the Vedas: and along with this, the study of Kalpasutra, Nirukta, and Mimamsa was regarded as useless and hence discarded. Further, the Great Buddha-deva did not like the spread of the Sanskrit language, and a degenerate language supplanted Sanskrit in all the Buddhist Viharas; and with the fate of the Sanskrit Language, that of Sanskrit Grammar also was sealed." The Vedas are divided into two portions, one treating of *Jnana* (ज्ञान), the other of Karma (कर्म्म): the bases of the Vedic Religion being ज्ञान or knowledge, and कर्म्म or disciplinary work or practice: the Karma preparing and purifying the mind and unfolding the character so as to make the student fit and able to receive and appreciate the truths of higher knowledge technically known in the Sastras as *Jnana*. The object of Buddhism being the study of knowledge apart from work, such study *alone* became the order of the then India, steeped, as it was, in Buddhistic ideas; while that of *Sastric* कर्म्म or application of knowledge (or ideas) to life got out of fashion in the Buddhist seminaries of learning. Without a reference to the capacity or eligibility of the learner attempts were made to impart to him all the highest and most difficult truths of Religious Philosophy.

And so, step by step, the ceremony of upanayanam gradually dropped out of observance, the intimate relation between learning and Brahmacharyya was disregarded, and all rules of Vedic *discipline and conduct* were lost sight of, and the sacred goal of all *Karma* or practice

of *Sastric* work, namely, the gradual unfoldment of character or the purified mind—was forgotten through an illegitimate attempt to storm the citadel of spiritual knowledge; which, however, is never possible except to one who has not submitted to the discipline of *Sastric work*.

In such parts of the country, however, as were free from the influence of Buddhism, the weakened Hindu society tried its best to preserve the old methods of teaching. But since this period of Indian history, Society has lost its unanimity as to the method of teaching its sons. In the age of the Vedas, the Samhitas, Brahmanas, Kalpasutras and other works, ancient Hindu society had worked with one view to attain to the same end by the same methods of teaching; but at the approach of Buddhism, India lost that unanimity and for ever, for century after century has worn on and we have not been yet able to recover it.

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CAN PHYSICAL SCIENCE ENLIGHTEN MAN AS TO HIS DESTINY?

The study of the physical sciences has opened out to man a vista, wider far both in point of space and of time than that bounded by his earthly existence, and has thus compelled him to take a larger view of his destiny. Can physical science enlighten us as to that destiny? Has it any revelation to make about a mystery, to man of the greatest importance, the mystery of Death?—Death, which seems to be the sharp, impassable boundary-line between the light of his present existence and the absolute darkness beyond! Science has enabled man to descry the future of the physical world, to predict occurrences that are to come about in it long after he shall have ended his earthly career. Has he no future, or is his own future to remain concealed from his view? Is it forbidden to pry into this future? Fobidden it cannot be, as he has feelings and aspirations which irresistibly lead him to yearn after a life beyond the present, which cannot be satisfied by anything short of endless existence, which tell him that if his personal existence were to close with this life, God and the universe would be to him as if they were not, and that it would have been better, far, infinitely better, if he had not been called into being at all. The question, therefore, "what fate awaits us when we die?" is the question of questions which man

asks himself and all his surroundings with an anxiety which can only be relieved by one answer. Is that the answer he receives from physical science?

The very fact of man being able to look back into the past and forward into the future, inspires the belief that this his present life is not likely to be the be-all and the end-all of his existence. And when it is remembered that this wonderful capacity has grown and is daily growing with the growth of the physical sciences, it will be evident how a study of these sciences is calculated to strengthen that belief. Here, again, strange to say, scientists are not wanting, and they belong chiefly to the class of workers who deal with life and its phenomena, who look upon a future life as an impossibility. At first sight this seems to be the inevitable conclusion from the facts of nature. Death is the invariable termination of all life on earth, and no trace of any living being as such has yet been found after the dissolution of the body. Nor has any rational being ever returned to the scene of his former existence after the cessation of that existence to tell the tale of the existence he or she may be leading, and thus furnish the most direct proof of a future life. There are descriptions, as we all know, of the occasional reappearance of the dead to relations, friends, acquaintances, or others, but where these descriptions are not positive fabrications, the phenomena they relate have so often been proved to be mere illusions of the fancy, that we may well reject them as having no legitimate bearing on the present argument. We must give up all hope of direct proof, and look about for any indirect ones that may be found, calculated to lend probability to the belief in a future existence.

The science which is capable of throwing any light on the subject, is biology. In this world there is no manifestation of mind except through a material organization; and the connexion between the mind and that organization, or, more properly speaking, that part of it called the nervous system, is so intimate, the manifestations of the former are so closely dependent upon the integrity of the latter, and besides, the development of the former is in such correspondence with the development of the latter, that the belief seems to be natural that the one, if not identical with the other, is somehow evolved out of it. The question would be settled if living beings could be formed *de novo, i.e.*, independently of pre-existent living beings. But in the absence of such demonstrative experiments, have we not, daily and hourly before our eyes, other and almost *similar* experiments performed for us by nature, and to a large extent modifiable by ourselves, which nearly demonstrate the point in

question? We see the genesis of living beings, and we avail ourselves of the laws governing it, to modify at our will, the character, physical and even mental, of beings that we want to call into existence. If, even under these circumstances, we refuse to look upon the mind as having its genesis in the organism, we can only account for its existence there under the shadow of hypotheses beset with infinitely greater difficulties in the way of their acceptance.

One of these hypotheses is, that at some period of intra-uterine life, the mind or the soul is by the Creator breathed or somehow introduced into the forming organism, intended to be its temporary dwelling-house, or the soul having been once introduced into the first man, has part of its essence continued into successive generations by the sperm-cell and the germ-cell. The greatest stumbling-block in the way of acceptance of this hypothesis is offered by the Darwinian hypothesis which has very nearly taken rank as a well-established theory. The other hypothesis is that of transmigration of souls, under which we have to assume that spirits are floating about everywhere, seeking for suitable organisms for their temporary habitations either from choice, or doomed to them by an unalterable fate, or by an irrevocable curse of some greater being. Such an hypothesis would introduce the greatest confusion into the affairs of life, because it would do away altogether with the law of causation, and shut up all scientific prevision.

So far, therefore, as we can arrive at any conclusion from available data, we have no other alternative than to accept provisionally the very probable hypothesis that the mind has its genesis in the material organization, through and by which it manifests itself. But because so, it does not necessarily follow that it must cease to exist with the dissolution of that organisation. In my humble opinion, it is only a superficial reading of the facts of biology which seems to lend countenance to the fear that with death ends all conscious and personal existence. We know that though the child is dependent upon the mother for its development and growth up to a certain point of its existence, it becomes independent of her after that; and we do not see any reason why the same may not be the case with the mind or the subtler essence which thinks and feels, which is the true man, the inner man, as it has been happily called, with reference to the grosser body, whose function it is to rear up the spirit enclosed within it. This view, it cannot be denied, has the appearance of what is ordinarily looked upon as materialism. But it has the appearance only, for we know nothing of the ultimate

nature of matter, or of mind. It is true, as has been stated by Tyndall, that "the passage from the physics of the brain to the corresponding facts of consciousness is unthinkable;" and that "granted that a definite thought and that a definite molecular action in the brain occur simultaneously, we do not possess the intellectual organ, nor apparently any rudiment of the organ, which would enable us to pass, by a process of reasoning, from one to the other." But it is equally true that the association between matter and mind is intimate, and that not only is the manifestation of the latter through a material machinery, but that its very birth and development and growth seem to be coincident with the birth and development and growth of that machinery. Here are two difficulties which we cannot, in the present state of our knowledge, reconcile with each other, though we are convinced that there must be a reconciliation between them.

[**Note by the Editor.**—May we intervene with a word or two of our own? For all practical purposes, following Tyndall, we may say that the material organisation and the 'inner man' functioning in that organisation are two distinct entities; that is what we actually see or experience. Besides this, we also observe, *i.e.*, experience that although distinct entities, they are also correlated. Now, the correlation may be between an independent entity (or entities) and its (or their combined) derivatives,—products derived from it (or them). And we may argue that by the law of conservation of energy, the derived product may continue to exist—even after the dissolution of the entity or entities that gave it birth, although only at the expense of *i.e.*, the transformation of the old materials. But this as we have seen, supposes the two as *mutually* convertible forms of energy. That is, we must under suitable arrangements be able to convert one form of energy into another and *vice versa* in order that we may be justified in saying that although the original has disappeared, the product survives and would continue to survive. In the case of the sun (in relation to particular objects) and the shadow, there is no mutuality, there is no real correlation;—we can no doubt alter the character of the shadow by modifying the arrangements in connection with the sun and the particular objects aforesaid. But the shadow won't survive in the absence of the originals; the shadow is not a transformed form of energy,—such that it obeys the law of correlation. In this case, the dissolution of the original arrangement would mean the dissolution of the derived arrangement. Therefore, for a particular form of manifestation to survive, we must satisfy ourselves on two

points—first, that it is a form of energy which could be evolved out of another form of energy; and secondly, that could *also* in its turn under suitable arrangements give birth to its correlated energy—the original energy. If, then, on the dissolution of the material organisation, the inner man, *i e.*, the thinking, feeling and willing principle (assuming it to have derived its origin from that organisation—as a sort of correlated manifestation or form of energy) must continue to exist, it could *only* be at the expense of the first, or original form of energy—namely, the material organisation. But then arises the difficulty,—Could the thinking principle itself give birth to matter, a material organisation? does it, in fact, obey the law of correlations, the law of correlated energies, the law of conservation of energy? If not, we cannot argue from the mere fact of the very intimate association between matter and mind that such association (not yet reaching the state of correlation in the scientific sense of the term), would of itself make for the survival, *i.e.*, continued existence of the "derived" principle—the thinking principle in man. Further, *assuming* that there is a strictly scientific correlation between mind and matter, such that mind-energy could under proper arrangements be transformed, *i.e.*, converted into matter, and matter into mind; there is another and to our mind not a very small difficulty. The difficulty is this. Different forms of energy, science teaches us, are continually passing one into another under fixed laws—the laws of quantitative equivalence: and, therefore, the permanently continued existence of any particular form of energy is altogether out of the question. Assuming, then, that the thinking principle in man (after having, under the law of conservation of energy, once come to exist) could under the same law survive, where is the hope of the permanently continued existence of that form of energy—in other words, of the immortality of that principle? Lastly, if the thinking principle survives under the law of conservation of energy, (at the expense of,—the conversion of a particular amount of pre-existent form of energy), we must, *under the same law, admit* the independent existence not of one but of both forms of energy, the 'material' energy, and the thinking energy; for the question of correlation only concerns itself only with the law of equivalence, assuming their pre-existence. The law of correlation assumes in fact, the truth of two independent forms of energy and shows only that given a certain amount of one, we can convert it into a fixed amount of the other. The question of absolute existence of both manifestations of both forms is assumed and admitted. Arguing along these lines of thought, one is tempted to say, though it is not for us to dogmatise,

that it is safer to provisionally accept the hypothesis that the truth about mind and matter is not really of correlation but rather of such *inter-relation* as exemplified in what in Mathematics (Mechanics) is called a *system* of *absolutely* independent factors acting and re-acting upon one another, such that any impressed change in one would lead to some changes in the others and lead, therefore, to an altered working of that *system*. The material organisation and the thinking organisation may, therefore, be supposed to form a whole system, the *embodied* man being such system, who is equally responsive to any stimulus from without or from within, and therefore continually showing evidence of action and re-action in the component parts of the system. The disappearance of the system would not, *cannot*, on this hypothesis, mean the extinguishment of the *absolutely* independent parts—but only the extinguishment of the whole as a *system*. This leaves room for the pre-existence and post-existence of the thinking principle, for when the death of the system *as system* is not synonymous with any real death of the parts. —*Editor, Dawn.*]

In this view, death ceases to be the great bugbear it has always been, striking terror into the stoutest hearts. Rightly understood, it is no more than the severance of the umbilical cord of present relationships which binds man to mother earth. The cultivation of the physical sciences conclusively shows that there is no limit to man's progress in knowledge, and necessarily no limit to the development of his whole being, except what is imposed by the conditions of his existence on our planet. His knowledge would increase with the increase of his years, but then his race would multiply so fast that the earth would be insufficient to accommodate them. And moreover, a time will come when the resources and capabilities of the earth itself will become so exhausted that it shall fail to supply him with fresh data for the enlargement of the sphere of his knowledge. In other words, physical science has made it plain that this earth cannot be his eternal abode. Death should, therefore, be hailed as the blessed event which frees him from the trammels of his existence in this world, in which, all things remaining the same, his individual progress must necessarily come to be more and more limited till it will cease altogether; and ushers him into a higher existence in which, his experience gathered in this life tells him, that under new and improved conditions he may enter on a career of never-ending progress.

A future life, in other words, the continuity of the life begun here, removes all the anomaly that would otherwise mar the harmony

of the universe. "The denial of a future life," as has been very truly said by Alger, "introduces discord, grief, and despair in every direction, and, by making each step of advanced culture the ascent to a wider survey of tantalizing glory and experienced sorrow, as well as the preparation for a greater fall and a sadder loss, turns faithful affection and heroic thought into 'blind furies slinging flame.' Unless immortality be true," continues he, "man appears a dark riddle, not made for that of which he is made capable and desirous: everything is begun, nothing ended;* the facts of the present scene are unintelligible; the plainest analogies are violated; the delicately-rising scale of existence is broken off abrupt; our best reasonings concerning the character and designs of God, also concerning the implications of our own being and experience, are futile; and the soul's proud faculties tell glorious lies as thick as stars."

Indeed, it is only a future life which can account for and satisfy the irresistible and inextinguishable instincts implanted in man,—his longing for life, his love of off-spring,† his sense of justice, his progressive capability of encompassing time, past, present and future. It is only the assumption of a future life which enables us to take a correct, a just, because a comprehensive, view of Creation. And thus the belief in a future life helps in clearing up the mystery of the existence of Evil,—a mystery which has been a puzzle to all thinking men in all ages, which has led the unthinking to entertain doubts about the absolute goodness of the Creator, and which has furnished the sceptic with excuses for denying his very existence. With a never-ending life before him man sees a beneficent meaning in the universe, is assured that he has a destiny which it is in his power to make either happy and glorious or miserable and ignoble, and that towards the fulfilment of that destiny the whole universe is ready to act in concert with him, if he will but wish it.

* Cuvier said on his death-bed: "I had great things still to do. All was ready in my head." What man of science, what man of action in any line of life, is there, of whom this might not be said? What man, not absolutely thoughtless, is there who will not feel, when about to take his departure from this world, that he had many great and good things still to do? No man, unless an idiot, can say at the time of death that he has done all that could be done, that is, has left nothing undone.

† Unless the universe is a delusion, parental love serves as the unerring index of the love which the Creator has for his creatures. If co-existent with the other instincts which lead to progressive development and thus point to futurity, parental love would afford one of the strongest proofs of immortality. Whether this view postulates immortality to the brutes, is more than can be determined with any degree of positivity from data at present available. The evolution of this affective principle, progressing with the rise in the scale of beings, and attaining its culmination of rational development in man alone, is a significant fact, which should not be lost sight of in this inquiry.

The words of an able reviewer of the Positive Philosophy of M. Comte—a philosophy which has gone far beyond agnosticism, and has taken up the position of an emphatic protest against all belief in a creative intelligence as opposed to all progress,—these words of the reviewer appear to me so applicable and appropriate to our present argument, and presents such a masterly refutation in a condensed form of atheistic sophisms, that I cannot resist the temptation of quoting them:

"Had the opinions," says he, "we have been combating been maintained by those rash speculators, who are permitted at distant intervals to disturb the tranquillity of the religious world, we should not have allowed them to interfere with ours. But when a work of profound science, marked with great acuteness of reasoning, and conspicuous for the highest attributes of intellectual power—when such a work records the dread sentiment, that the universe displays no proofs of an all-directing mind, and records it too as the deduction of unbiased reason, the appalling note falls upon the ear as like the sounds of desolation and death. The life-blood of the affections stands frozen in its strongest and most genial current, and reason and feeling but resume their ascendancy, when they have pictured the consequences of so frightful a delusion. If man is thus an orphan at his birth, and an outcast in his destiny; if knowledge is to be his punishment and not his pride: if all his intellectual achievements are to perish with him in the dust: if the brief tenure of his being is to be renounced amid the wreck of vain desires, of blighted hopes, and of bleeding affections—then in reality, as well as in metaphor, is life a dream."

To conclude: it is only by a systematic study of the physical universe, the universe which is cognisable by the physical senses that he finds the universe a cosmos, a well-ordered harmonious whole, with the impress of a directing intellgence throughout; and not a chaos holding eternal anarchy, and chance governing all. The contemplation of the universe under the guidance of such study, brings the human mind in contact with a Mind which is like itself but infinitely transcending it in all its attributes. And thus the mind of man is revealed to him by the light of physical science as formed in the image of the Divine Mind. The study of the physical universe, is, in point of fact, the study of the Divine Mind in certain of its manifestations. These manifestations serve a purpose, the purpose of educating a certain order of rational creatures of which man forms perhaps the lowest type. Whether there are beings, Pure Intelligences, who are independent of the physical universe for their origin and development

and growth, we cannot tell. But that creatures like man are so dependent, there is ample evidence to prove. For such creatures, the study of the physical universe must be essential. The fact of physical laws being verifiable, the fact of physical phenomena being reproducible by a due arrangement of their causal conditions, or at least capable of prediction by calculation, affords the unchangeable basis on which the human mind can take its stand for positive certainty in all its investigations. Thus, physical science strengthens the faith that is in us in the uniformity of nature, which, being rightly interpreted, means the faithfulness of the Creator to his creatures, by furnishing it with the evidence of things not seen; and so physical science teaches that that faith has been implanted in us to give us assurance of the realization of things hoped for.

MAHENDRA LAL SIRCAR.

THE PROBLEM OF RELIGION ACCORDING TO THE RISHIS: VI.—THE ELEMENTS OF MIND-TRAINING.

[*Continued from page 17, Vol. V.*]

Our last article on the subject was devoted to explaining in some detail how the Western Scientist seeks to counteract the various influences and suggestions of the impure human mind, when he is engaged in truth-investigation with the help of such mind itself. We showed that the counteractive agency adopted by him is the method of verification. That is to say, the trained man never trusts fully to the ideas, views, suggestions, theories or explanations which come to him in his study of any phenomena; but what he does is this—he makes fresh observations either directly or by means of experiments, makes new combinations, new trials and thus tests the truth of the original explanation.

In this way he controls, uses and directs his mind, and a habit of constant testing, of constant mental watchfulness, which comes from subjecting every explanation, suggestion, idea or theory of his mind to the test of fresh experience, fresh trials, new combinations, is to him a great *spiritual* discipline, a great factor in his mind-control. How many of us would in this way weigh our conclusions and deliver our judgments! Our judgments and conclusions in every-day life are of the most slip-shod kind; they in most cases record merely our own prejudices, biases, pre-conceived notions, beliefs, and what not! Yet the truth-seeker is he who never accepts as true any suggestions of his mind, however strongly felt, unless he could take steps to verify them by

means of new experiences, observations and experiments. "The understanding is naturally forward, not only to learn its knowledge by variety (which makes it skip over one to get speedily to another part of knowledge) but also eager to enlarge its views by running too fast into general observations and conclusions, without a due examination of particulars enough whereon to found those general axioms. Such theories built upon narrow foundations stand but weakly, and if they fall not of themselves, are at least very hard to be supported against the assaults of opposition. One or two particulars may suggest hints of enquiry and they do well to take those hints; but if they turn them into conclusions and make them presently general rules, they are forward, indeed, but it is only to impose on themselves by propositions assumed for truth without sufficient warrant. When this is not done, but men take up the principle in this or that science upon credit, inclination, interest, etc., in haste without due examination and most unquestionable proof, they lay a trap for themselves and as much as in them lies, captivate their understandings to mistake falsehood and error." (*Locke's Conduct of the Understanding, pp.* 59—60, and 48, *Fowler's Edition*).

This method of verification is, it is evident, a complete check to the vagaries of the mind when it seeks to establish principles for the explanation of events and phenomena, and is therefore a most important factor in the art of mind-control. Having said so much in general terms, we proceed to explain and show that the scientific method, if properly understood, gives us most important results as to the methods of mind-control for purposes of truth-discovery. We have said that the scientist in adopting the method of verification has to correctly observe facts, devise experiments and hit upon (what appears to him at the moment) the most probable theories (which he then verifies by the above observations and experiments). An analysis of these three separate processes would show that not one of them is possible to the uncontrolled mind. For *even in observation*, as Faraday says, "the force of temptation which urges us to seek for such evidence and appearances as are in favour of our desires and to disregard those which oppose them is wonderfully great. In place of practising wholesale self-abnegation we receive as friendly that which agrees with, and we resist with dislike that which opposes us." (*Lectures on Education*, 1854). The principle of verification declares that no theory, explanation, belief or suggestion could be finally accepted unless it is subjected to the test of fresh, observed facts, but the untrained, uncontrolled mind takes account *only* of such facts, events

or phenomena as comport with a pre-conceived theory or notion, and so it wanders in a most vicious circle. Thus, the impure human mind misleads us by suggesting theories and explanations which agree with our prepossessions or prejudices, and also by inducing us to overlook facts which do not support or confirm our beliefs or theories. But the method of artificial observation or experiment gives more certain results to the Western truth-seeker. In *observation*, then, we must practise a certain amount of control over our desires and feelings. The truth-investigator is placed in a most unenviable position; he must combine in himself the most opposite qualities. He must be at once partial and impartial: he must be partial to his beliefs "must have confidence, in fact, in the truth of his theories, and yet he must have that candour and flexibility of mind which would enable him to accept unfavourable results and abandon mistaken views" (*Jevons' Principles of Science*, p. 404). It is clear then that in the pursuit of truth by the method of verification, the truth-seeker's mind is being continually put to a severe discipline; his habits of irresponsible thinking and partial observation, are being continually weeded out; his likes and dislikes are being continually weighed in the balance, and he soon comes to recognise that likes and dislikes, *apart from the truth*, mark but a low stage of human evolution. Thus, we arrive at a grand truth in all sciences including the spiritual, that the forces of likes and dislikes, attachment and aversion to particular facts, events or phenomena must be completely neutralised or conquered before the revelation of truth in relation to those phenomena is possible. As *Sri-Krishna* says in the *Gita* (Chap. VII. 27).

इच्छाद्वेष समुत्थेन द्वन्द्वमोहेन भारत।
सर्व्वभूतानि सम्मोहं सर्गे यान्ति परन्तप॥

The purport of which is that through the domination of the contraries, *viz.*, likes and dislikes, all sentient existences become subject to the forces of error: and the necessary corollary to the above truth is (*vide Gita* V. 19.)

इहैव तैर्जितः सर्गो यषां साम्ये स्थितं मनः।
निर्दोषं हि समं ब्रह्म तस्मात् ब्रह्मणि ते स्थिताः॥

[The purport of which is that the Master's mind has mastered the forces, aversion and attachment to things, and is in *equilibrium*, which is the state in which the Truth stands revealed. This state, free from all taint is the state technically known as Brahman. Therefore, do they realise the state of Brahman.]

This analysis of the methods of physical science has revealed to us one most striking fact about the inner or spiritual condition of the man who would most successfully investigate the truth, whether in the realms of material or of spiritual science. We have shown that the truth suggests itself most readily to him who combines in himself the contradictory virtues of confidence in and indifference to his beliefs and theories, and we have suggested also that the above state which is, according to the *Gita*, the state of साम्य or equilibrium, which is the state of freedom from all taint, is also a *positive* state, technically known as the *Brahmanhood*. In another article we would deduce another, and a most important lesson from our analysis of the Western method of truth-investigation.

EDITOR.

PHYSICAL SCIENCE IN THE NINETEENTH CENTURY.

The conception of all existence as merely, to use the words of the late Professor Blackie, a grand evolution of self-determining Reason, a conception which alone can make the world intelligible, lends a sort of remoter charm to the subject before us and brings out the two points of view from which scientific progress may be looked at. For, in the first place, while the main interest of an investigation into the progress of the physical sciences like Physics and Chemistry turns upon the extent of man's command over "the silent Nature's breathing life," (to use the poet's words in a slightly different sense), of his power of utilising, for purposes of his own material comforts, the hidden forces of Nature, "their glorious tasks in silence perfecting", (Mathew Arnold), that of an investigation into the progress of sciences like Geology and Astronomy turns upon the contribution to the individual Reason's knowledge of the manifestations of the "Absolute, self-existent, self-energising, self-determining Reason." Indeed if, as the late great Poet-laureate says, "to one far-off Divine Event the whole creation moves," such a consummation can only mean, (at the risk of being somewhat prosaic), a most perfect knowledge (and application) of all the forces at work in God's Universe and Creation. Viewed in this light, indeed, the study of science has an absorbing charm and becomes indispensable to every creature of God who at all cares to know the glory of his God, revealed equally in—

"* * * the light of setting suns,
And the round ocean, and the living air,
And the blue sky, and in the mind of man:—"

in all things of the "mighty world of sense." Perhaps the *true* man of science whom the poet upbraids with the knowledge only of cold material laws disenchanting the world of all its lovely visions feels more keenly than the poet himself does "the sense sublime

> "Of something . . . deeply interfused,
> * * * *
> A motion and a spirit, that impels
> All thinking things, all objects of all thought,
> And rolls through all things."*

The present subject, therefore, while its interest is heightened, has its treatment rendered too difficult within the limits of a short article like the present. We, would, therefore, take a cursory glance at the progress of the sciences during a period from the commencement of which the very birth of scientific progress may be said to date. Indeed, it seems that once freed by the revolutions of the Renaissance and Reformation at the close of the Middle Ages and the great revolutionary upheavals of the close of the 18th century, from the trammels of an undeveloped civilisation, of crude political and social conditions, the mind of man could turn freely to the physical world outside, so that by the opening of the 19th century scientific progress takes it rise. With this preface, we proceed very shortly, indeed, to review the progress of the sciences in the following order:—

I. Geology and Paleontology.
II. Biology.
III. Astronomy.
IV. Physics and Chemistry.

I. Up till the advent of the nineteenth century people had a deep-rooted and an unquestioning belief in the accuracy of the theory of the Noachian Deluge, described in the Old Testament as sufficient to account for the many perplexing geological revelations that began to crop up occasionally. These were (1) discovery of fossils imbedded miles deep in rocky strata; (2) discovery of bones of prehistoric animals in caves in England; (3) discovery in 1802 of a great mammoth imbedded in Siberian ice and other similar revelations. The feeble murmur of Buffon, Hutton, Goethe and a few others was drowned in the eloquence of the prevailing theory which promptly accounted for those strange geological phenomena by the supposition

* Wordsworth.

that during the deluge the surface of the earth became as paste in which fossils and higher forms of life sank; that the caves in which the bones of the extinct animals were found were formed by gases from their decaying flesh which made bubble-like cavities in the plastic clay before it hardened into stone. It hardly seems at this distance of time possible for us to conceive with a degree of definiteness or precision how it was that the world was so crude in its ideas as the above description would indicate; but the above statement of fact is amply borne out by even a cursory reference to standard works on the subject discussed.

It was not till the opening of the nineteenth century that the feeble murmur set up against the theory of universal catastrophism and occasional deluges gained in strength through the researches of eminent scientists, among whom may be mentioned Lamarck, Cuvier, Buckland, Smith, Lyell, Charpentier, and Agassiz. The observations of Lamarck upon the bones of pre-historic monsters followed up by those of Cuvier and Buckland and by several American scientists established the indisputable fact that numbers of mammoth quadrupeds and other vertebrates (whose resemblance may still be traced to several tropical animals) peopled the earth in by-gone ages; and they pointed to the inconceivable sweep of time since life appeared on this planet.

The next great geological truth came from the observations of Lyell which revolutionised the popular theory by his discovery that the testimony of Nature in her rock-writ-pages showed how life persisted from age to age though sometimes destroyed by occasional sinking of land.

But perhaps the most important fact established in geology is that of the Glacial Epoch or epochs. This was first discovered by Charpentier and Agassiz from a hint from a chamois-hunter Perrandin and it has since accounted for many hitherto perplexing problems of geology.

And so, step by step, has science been able to remove many of the mysteries of by-gone ages, exploding erroneous theories.

II. We pass on now to the biological revelations of the preceding century which kept pace with the discoveries in geology and paleontology. These revelations turn upon the grand central fact of the theory of the transmutation of species developing afterwards into the Evolution Theory, by the middle of the last century. At the very dawn of that century, however, the theory of transmutation of

species was boldly put forward by Lamarck in the teeth of all opposition; and his hints were, though feebly, followed up by Buffon the great naturalist, Goethe the poet, and the rhyming philosopher Erasmus Darwin. The theory, however, met with universal opposition which was not overcome till by the middle of the last century. Charles Darwin began to work at it and returned from his trip round the world undertaken for the study of natural phenomena, convinced of the truth of the Evolution Theory. In 1844, Darwin prepared a digest of his theory and presented it to his friend, Sir Joseph Hooker, who received it with sympathy. To Professor Asa Gray, the great American Botanist, he also wrote on the subject of evolutions, outlining the theory. Before the publication of his theory, however, Darwin received a paper from a young naturalist, Alfred Russell Wallace, (who for many years had been studying life in the Malays Archipelago) whose conclusions were the same as those reached by Darwin. It was now decided that the papers of both Darwin and Russell were to be brought out simultaneously and they were submitted to the Linnæan Society at its annual meeting in 1858. About a year and a half later Darwin published his "Origin of Species," which finally established the theory of Evolution and was promptly followed by such eminent scientists as Herbert Spencer (who, by the way, had, before Darwin published his work, arrived at the identical conclusions through philosophical deductions which were published in 1857), Wallace, Prof. Asa Gray, J. H. Huxley, Sir Charles Lyell, Sir Joseph Hooker, John Tyndall and Ernst Haeckel of Germany. Thus, the great theory of evolution was established, and it is now of almost universal acceptance in the intellectual world.

III. Let us now pass on to Astronomy which, in its character of a modern science, had its birth in the closing decades of the eighteenth century. Since the time that Herschel discovered Uranus, the science of Astronomy has progressed by leaps and bounds having its study facilitated by improvements in telescopes, by the spectroscope, by photography, by the invention of the heliometer and other scientific discoveries and inventions; so that not only can we now verify for ourselves the existence of millions upon millions of stars, but we are able to measure their distance, calculate their size, and, what is more wonderful, to ascertain the chemical composition of the flaming suns or luminous stars that keep eternal vigil, though millions of miles away.

Among other but no less important achievements in the department of Astronomy may be mentioned (1) the star-charting of the heavens, in which more than 500,000,000 stars are placed with a degree

of accuracy rendered possible by photography; (2) the discovery, with the help of the spectroscope, that the nebula was composed of great masses of glowing gases; (3) the discovery of double stars and of dark stars; (4) the discovery of the planet, Neptune. These form a chapter in scientific revelation worthy the achievements in any other science.

IV. Lastly, we pass on to the domain of Physics and Chemistry. In Physics the two grand truths of the Law of the Conservation of Energy and of the Undulatory Theory of Light are alone worthy the achievements of the preceding centuries. While in Chemistry the establishment of the Atomic Theory by John Dalton followed by Sir Humphry Davy with his decomposing voltaic battery has made the progress of the science of Chemistry sure in the future.

Thus, the savants of the 19th century turned page after page of the great book of Nature and found a key to each of its manifold hieroglyphic characters impenetrable to the ages preceding, "finding" (as it were, if we only understood it), "tongues in trees, books in running brooks, sermons in stones," and in every object of Nature: while giving promise of a nearer approach to that final revelation of the infinite unfoldings of the Infinite Reason to which the whole human consciousness seems intended "to move."*

RADHAKUMUD MUKERJEE.

SRI-CHAITANYA AND HIS MESSAGE.—VI.

[*Continued from page 237, Vol. III.*]

PUPILAGE.

And Nimai proved by no means an unworthy pupil. Grave in his deportment, submissive to his Preceptors, diligent in his studies He was at the same time the most keen-witted of scholars. So keen was His intellect, so strong His common sense, so powerful His receptive and retentive faculties that He had nothing but praise from His teachers; that though only nine, He was considered to be quite a boy-genius. His Preceptors were Vishnu-Pandit and Sudarsana-Pandit.

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* I would invite my readers to look up another article entitled "The Material Triumphs of Science" which appeared in this Journal so far back as May, 1897, (Vol. I., No. 3.), where the wonderful applications of truths discovered by nineteenth century science have been given in greater detail, while the present article concerns itself more with the truths themselves. Further, in the August, 1901, number of *The Arena*, the reader will find the present subject elaborated with greater wealth of detail.—R. K. M.

At this time Jagannath thought of initiating Nimai into the mysteries of Brahmanism. So, on an auspicious day, Nimai was shaved on the head and the ochraceous garb (गैरिकवसनं) was put on His person. Old Jagannath whispered into his young ears the seeds of the eternal cult—the Gayatri mantram—which has been called the Mother of the Vedas; and with this spiritual possession, young Nimai burst forth like the morning sun, staff and bowl in hand, to proclaim the glory of Brahmacharyya to humanity. Brahmacharyya or the asceticism of pupilage is a godly institution of the land. It is a pity that its esoteric significance is not known to a great many of us. If we once could revive it in spirit, the occupation of writers on Ethics and Morals and the need for the Higher Training Societies would be gone. Half the evils which the present-day student life is heir to would vanish. Brahmacharyya enforces austere asceticism in actual life, enjoins absolute submission and veneration to Gurus or the spiritual teachers. Discipline is the young student's food and drink—aye, the air he inhales.

One striking event occurred during Nimai's initiation. He groaned and raved and then fell into a trance. During the trance His body was found to be one blaze of light and tears copiously trickled down His cheeks. His demeanour struck the by-standers with majestic awe. They thought that some celestial Being had taken possession of His body. Some imagined that He was none other than Krishna Himself. From this time some began to call Him Gour-Hari.

Nimai's trances became more frequent; but His parents began to look upon them not as the doings of the Evil spirit but as the effect of Divine Inspiration. He looked one blaze of light when that inspiration was on Him and He uttered words with the gravity of a Prophet. In such state He commanded Sachi to abstain from taking boiled rice on the eleventh lunar day. On a different occasion, He gave out with a considerable degree of mysteriousness that He was going to leave her so far as His physical self was concerned and would return in the fulness of time, that she was to nurse what remained as the body of her son. Thereafter, as He bowed down to her He fell into a trance.

On regaining consciousness Nimai looked quite a different Being altogether. In fact He came back to His former boyish state. The metamorphosis was so remarkable that His biographer Murari narrates it in his *Kurcha* and makes it the basis of some philosophical speculations.

Jagannath was now very happy as Nimai was pursuing His

studies to the satisfaction of everybody. Jagannath inwardly prayed to the Lord of All-Mercies to grant Nimai a long life and make Him a good *Grihi* (householder). Jagannath did not live long to see the fruit of his supplications.

When Nimai was eleven years old, His father was prostrated with a severe attack of fever of which he died. Nimai now wept like any ordinary child saying: "Father! from to-day I am deprived of taking the name of father!"—an exclamation the full force of which is intelligible only to those who have lost a father.

With the departure of Jagannath from this world, the home looked empty for a while in poor Sachi's eyes. She bitterly felt her loneliness in this world such as a Hindu widow and Hindu widow alone could feel. But the call of duty must be obeyed inspite of the emotions. These must be stifled and Duty discharged. Nimai was now barely twelve years old. As the surviving parent, it was Sachi's supreme obligation to nurse Him and rear Him up as a mother should. But she was absolutely without means, though her wants were very few, indeed. Some one was needed who might exercise paternal supervision over Nimai's education. Such a one was found in the teacher Gangadas who at the date of our narrative kept a Sanskrit school in the vicinity of Nimai's home. The matter was quietly settled by Sachi who took over her Boy to the Professor and with tearful eyes asked the generous Professor to take charge of the intellectual well-being of her orphan son. The Professor consented and Nimai made a profound bow to him. Then, with the expression, "Do thou thrive in learning," he admitted Nimai into his academy.

Nimai soon made wonderful progress there. He mastered in no time Sanskrit Grammar and was able to write a book on that difficult subject while He was not yet twenty. Nimai was the prince of students, and in His intellectual pursuit He gave the lie to the saying, "all work and no play makes Jack a dull boy." Those were essentially His laborious days which He spent in the cloisters of the academy and His only recreation was to eat at home and talk to His *ma'* (mother). He had bid an eternal adieu to play and sport of every description. This part of His life affords a model for our students for imitation and guidance.

In those days culture was regarded as of no avail unless a student took to Logic. Nimai seems to have learnt that Art also. It is a pity that owing to Nimai's young age and other circumstances, He did not attract much attention from His professors, but among his fellow-students He was the observed of all observers, of whom Raghunatha, the future author of Didhitie, was one. In fact, Raghunatha

was charmed with the fine intellect of his class-fellow. This was not however all. On the road or on the river side, in bathing time or in the cool breeze, Nimai was always a keen controversialist among the student community and His commanding superiority as a controversialist secured for Him their approbation and esteem. Nimai became a thorn by the side of Raghunatha. The lustre of His genius quenched that of Raghunatha's. Nimai took up Logic in right earnest and commenced writing a commentary upon it. Raghunatha also did the same with the object of being counted as the first logician of the world. With what object Nimai's commentary was written Heaven alone knows. When, however, the two students discussed the respective merits of their commentaries, Raghunatha was so ashamed of his own production and was so struck by the superiority of his rival that he actually burst into tears. Raghunatha's was a fearful disappointment which found vent in tears. The fact of the matter was that Raghunatha's work was diffuse and verbose, while Nimai's was terse and concise and appeared to be the production of a much superior intellect. Nimai was too generous to take advantage of His rival's discomfiture. So, consoling Raghunatha in the best way he could, He flung His own production in the river, exclaiming that Logic was an unproductive and barren art and deserved that fate.

So it really was, and I would ask our student generation to take note of our Lord's remark. They are well aware that Logic does little towards the acquisition of knowledge. In Europe, Logic led the mind to move in a "vicious circle" as Auguste Comte phrased it. In India, *Nyaya* was not merely a formal art, as formulated by Whateley, but comprehended Material Logic also. But formal or material, or both combined, *Nyaya* with all its usefulness interferes with the growth of knowledge. It gives the palm of superiority to Deduction, smothering Induction. It prevents all Observation and Experimentation for the discovery of physical laws or truths. It despises Natural Philosophy as an unworthy object of pursuit.

From the day that Nimai flung away His commentary on Logic He bade farewell to that Art and with it to the academy also.

One word more before we close this chapter. In His student life, Nimai used to be very harsh to the Vaishnava community. Like Saul before his conversion, Nimai was a moral persecutor of the followers of Vaishnavism. People who take Him for an *Avatara* say that He was always so towards His own people as His life amply shows.

BULLORAM MULLICK,

Late of the Subordinate Judical Service.

ON INFANT MARRIAGE *versus* DEFERRED MARRIAGE: QUESTION OF LEGISLATIVE REMEDIES.—I.

[BY A BENGALEE CHRISTIAN.]

[*We propose to discuss the question of Infant Marriage* v. *Deferred Marriage in this and subsequent issues. Both pros and cons ought to be discussed and we would invite our readers to send us contributions on the subject.—Ed. Dawn.*]

Every Englishman must be painfully impressed with the evils that attend the custom of deferred marriage, if not sometimes ready to doubt whether infant marriage may not be the less of two evils. It is certainly not in India only, that parents choose the life partners of their children. Over the greater part of Europe young people have, we suspect, little practical choice in the matter. They marry those who are selected for them by their parents, and upon a broad survey of the general results, he must be a bold man who will affirm that deferred marriage and the unrestricted freedom of choice between the sexes, produce a larger amount of happiness and morality in the community, as a whole, than early marriages contracted under the sole will of the parents, while there is ever in the background, that terrible leprosy of which we are so slow to speak, and are so desirous to forget.—*Statesman, 1887.*

The subject selected for discussion in this paper * runs as follows:—Should Government be asked for a law allowing the marriages of Hindu infants, solemnized without the intelligent consent of both parties which have been in no way ratified by them afterwards, to be voided at the request of one or both of the parties, especially in cases where one or both have ceased to be Hindus?

The subject naturally divides itself into several parts. For the purposes of this paper, I shall divide it into four parts:—(1) Is the Hindu infant-marriage any marriage at all? (2) Are those marriages such an evil that legislative interference is needed for making them voidable? (3) Should Christian Missionaries ask Government for such legislative interference? And (4) lastly, if they could not ask for such legislative action in the interests of the Hindus, should they ask for it on behalf of those who have ceased to be Hindus, or, in other words, on behalf of those who have become converts to Christianity?

Is the Hindu infant marriage any marriage at all? This is the most important of all the questions, and to answer it, it is necessary to examine briefly the nature of the conjugal relation itself. I

* This paper was originally read by the late Babu Joygobind Shome, a Bengalee Christian, at a meeting of the Calcutta Missionary Conference held on the 31st June, 1887.—*Ed. Dawn.*

think you will all agree with me, if I were to define marriage as a union between two persons, a male and a female, for certain social and other purposes. This definition is not perhaps complete, but for the present you must remain satisfied with it, as our differences begin the moment we try to make it more definite. Now the next question is, how is this union effected? Do the Scriptures throw any light on the matter? In my humble opinion, the teaching of the Scriptures on this point is very explicit. God is expressly said to be the author of this union. Speaking of this union, our Lord said—"What God *hath joined* together, let no man put asunder" And he illustrated the truth of this statement, by referring to the first union on record. He said to the Pharisees—"Have ye not read that he which made them at the beginning, made them male and female." It is God who created Adam, and it is God who stood as a father to him, that said, it was not good that man should be alone. It is God who said, "I will make a helpmeet for him," then made Eve, and "brought her unto him" that is, as I understand it, *gave her unto Adam to be his wife*; for we read that when Adam was scolded for having eaten the forbidden fruit, he said, "The woman whom Thou *gavest* to be with me, she gave me of the tree and I did eat." Accordingly, we find Solomon calling wife as a "gift from the Lord," and in the marriage service appointed by the Church of England, some one is required to stand as the donor of the bride as it is also the case in every Hindu marriage. "Marriage," says Dr. Gurudas Benerjea, in his book on the Hindu Law of Marriage, "is viewed as a gift of the bride by her father or other guardian to the bridegroom." The marital union is thus a divine union: it is the work of God and not of man. *Adam was allowed no choice, but he loyally accepted what God, his father, gave him. It does not appear that he even sought a wife, but God thought of a wife for him.* I am led to these observations to show that the Scriptural idea of marriage is not that of a civil contract and that consent is not the essence of it. Our Roman Catholic brethren regard it as a sacrament; so do the Hindus. If marriage were regarded as a civil contract, then I do not see how we could escape the logical and necessary inference that it must be, like all other contracts, dissoluble by mutual consent. But if you fall back upon Scripture, or upon public policy to maintain the indissoluble character of marriage, then surely it is safer and more consistent to make the same the basis of the origin of this relation. It may be here asked—how could two persons enter into a relation of which they could form no idea and the duties of which they could not discharge? I reply—How could two infants enter

into the relation of brothers when they did not understand the nature of that relation nor were they able to perform the duties arising from it? How could you call an infant, a son, when he did not understand what filial duties meant? But if you could have infant brothers, infant sisters, infant sons, yea, infant Christians, then I do not see how you could pronounce infant husbands and infant wives a nullity. But as in every natural relation, that is, relations in which men have been placed by God in His Providence, intelligence and consent are necessary to a proper discharge of the duties imposed by them, so in the conjugal relation also, consent is necessary to a proper discharge of the duties and responsibilities imposed by it, though consent may not necessarily enter in its origin. At least, if consent be a necessary element in every marriage bond, the necessity is not apparent to all men, and the onus lies upon those to prove it, who assert that there can be no valid marriage without the mutual consent of the parties married. To say that marriage is for the marriageable may be admitted to be true if by it be meant that those only ought to marry who are capable of discharging the duties of husbands and wives at some period or other of their life; but it is a pure assumption and requires proof, if by is intended to be conveyed the idea that the conjugal relation cannot be established between two parties unless they could *at once* enter upon the duties of that relation. I have already shown that the strongest domestic relations come into existence between parties, involving the performance of most important and pacific duties, without the parties for a time being conscious of those relations and that they only begin to realize the duties and feel the responsibilities arising from them as they grow in age, knowledge and intelligence. Why could not the conjugal relation be established, then, at an age when the parties affected by it were unable to give their intelligent consent? I see no reason why it could not. *I would ask you, therefore, to look upon marriage as a sacred bond or union formed between two persons, a male and a female, of which God is the author.* In the case of the first marriage on record, God actually brought the woman unto the man and gave her unto him to be his wife; in after times, God has accomplished this union through human agencies; either the parties themselves forming the union in accordance with the laws of the country in which they lived, or the union being effected by their guardians. In both cases, God should be regarded as the author of the union, and as God cannot be the author of sin or immorality, I would hold further that all those marriages, be they of infants or adults, be they in accordance with human laws or contrary thereto,

as null and void which can be proved to be sinful or immoral. Accordingly, I would maintain that if the Christian Church regarded *all* polygamous marriages or *all* inter-marriages between Christians and non-Christians as immoral or sinful, then she ought to regard them also as null and void; at least, she ought not to recognize them. Now, if the marital union be a divine union, it also follows that man cannot and ought not to separate those whom God hath joined together. This was implied in our Lord's reply to the Pharisees on the subject. His reply was, says Dean Alford, commenting on Matt. 19. 6, "that abstractedly from the nature of marriage, it is indissoluble." Adultery in a wife justifies a husband only to put her away, but as St. Paul says in the Romans, "the woman which hath an husband is *bound* by the law to her husband so long as he *liveth.*" In other words, the marriage continues in force so long as the parties to the union live, and that it is dissolved only by death. Whatever the modern law of divorce may be, it is opposed to the teaching of the Scripture, to the teaching of the Catholic Church and also to that of the Hindu *Shastras.* ["And I say unto you, whosoever shall put away his wife, except it be for fornication, and shall marry another, committeth adultery: and whoso marrieth her which to put away doth commit adultery."—Matt. XIX., 9.] Had marriage been a mere contract, it would have been, from its very nature, dissoluble by mutual consent; but such a notion I hold is opposed to the Scriptural and the primitive Christian idea. It is altogether a modern invention, and I am happy to say that it finds no countenance in the Hindu *Shastras.*

Now, holding, as I do, that marriage is a heaven-ordained relation, that the union is effected by God Himself, that it is in its very nature indissoluble, except by death, and further that the Hindu infant-marriage is as valid as any other kind of marriage I could not apply to Government for a legislative measure, measure that would render such marriages void or voidable, even supposing that such legislative interference were not inexpedient. My idea of the marriage bond is opposed to such legislation though it was in conflict with the history of it in this country; for, following the recent example of the English Parliament, the Indian Legislature have passed two Acts, Act IV of 1869 called the Indian Divorce Act, and Act XXI of 1866 called the Dissolution of the Marriage of native Converts. But I think the Church and the State might well differ in this matter. The State may have one law and the Church another, and this is recognized in the express provision made in the Divorce Act that

Clergymen of the Church of England and other ministers of religion are not bound to solemnize the marriages of persons who have obtained divorce. To the Canon Law of England divorce is still unknown, though the Church sanctions separation from bed and board in a case of adultery by the wife or husband. In my humble opinion, the Church of England continues with the whole Catholic Church loyal to the Scriptural injunction—"What God hath joined together, let no man put asunder" (Matt. XIX., 6): and if the Hindus have also such a law inculcated by their Shastras, I for one would not inoculate the Hindu mind with the modern doctrine of divorce, which has already been carried to such lengths by some of the European nations as to inculcate incompatibility of temper as a just and sufficient ground for dissolution of marriage. This is the necessary and legitimate effect of the theory advocated by our Scotch and American friends, that marriage is nothing but a civil contract. I will take up the second division of my subject in another paper.

SVARAJYA-SIDDHIH.—XXIV.

[*Continued from page 24, Vol. V.*]

Now we have seen by an analysis of the Pranava according to the Upanishads that each of its component parts corresponds to an aspect of Brahman, the first three denoting the gross, subtle and the causal aspects respectively, and the fourth representing the pure, absolute Self, free from all limitations (upadhis). In the first two states (*viz.*, Viswa and Taijasa) the ego is said to be in a state of dreamy sleep—the sleep of ignorance or the inability to realise the truth and the real nature of things. Therefore, in these states the Self is said to be limited by both the cause (*viz.*, ignorance) and its effect (the wrong perception of things), and in the third, when it is in a state of dreamless sleep, by the cause only, inasmuch as in the third, there is not at all any perception of things, whether right or wrong, correct or incorrect; only the Samskaras or impressions about them existing in a potential, unmanifested state. But in the fourth, this limitation also has been shaken off; *Avidya* with all her train having vanished, there is neither the wrong perception of things nor is there any impression of it left behind. After a long, long sleep which nobody knows when it began, the ego tears itself free from the dulling and stupefying

fetters of *Maya* and awakes, the truth of this whole fabric of the universe rushes upon it, and it realises that the only reality in this world of unrealities is the One, Secondless Self which knows neither birth nor death, sleep nor dream, but is "ever-permanent in one mode of being." (*a*) In answer to the enquiry how this sublime state, the Fourth, the Tur*i*ya, is to be realised, how the J*i*va is to seek after an absolute emancipation from the binding forces of Avidy*a*, it is laid down in all the Upanishads and *S*astras, that the meditation upon the Pra*n*ava in the way prescribed by an *A*ch*a*ryya or preceptor (*b*) is the means.

(*a*). कार्यकारणबद्धौ ताविष्येते विश्वतैजसौ। प्राज्ञः कारणबद्धस्तु द्वौ तौ तुर्ये न सिध्यतः। नात्मानं नापरांश्चैव न सत्यं नापि चानृतम्। प्राज्ञ किञ्चन संवेत्ति तुर्यं तत् सर्वदृक् सदा॥ द्वैतस्याग्रहणं तुल्यमुभयोः प्राज्ञतुर्ययोः। बीजनिद्रायुतः प्राज्ञः सा च तुर्ये न विद्यते॥ स्वप्ननिद्रायुतावाद्यौ प्राज्ञस्त्वस्वप्ननिद्रया। न निद्रां नैव च स्वप्नं तुर्ये पश्यन्ति निश्चिताः॥ अन्यथागृह्णतः स्वप्नो निद्रातत्त्वमजानतः। विपर्यासे तयोःक्षीणे तुरीयं पदमश्नुते॥ अनादि मायया सुप्तो यदा जीवः प्रबुध्यते। अजमनिद्रमस्वप्नं अद्वैतं बुध्यते तदा॥

Gaudap*a*da's K*a*rik*a* to M*a*n*d*ukyopanishad, I. 11—16.

(*b*). It will be seen that in the Upanishads, a teacher is regarded as indispensably necessary for an acquisition of the knowledge of the Self. The Chh*a*ndogyopanishad says upon it, "यथा सौम्य पुरुषं गन्धारेभ्योऽभिनद्धाक्षमानीय तं ततोऽतिजने विसृजेत् स यथा तत्र प्राङ्वोदङ्वाऽधराङ्वा प्रत्यङ्वा प्रध्मायिताभिनद्धाक्ष आनीतोऽभिनद्धाक्षो विसृष्टः॥ तस्य यथाभिनहनं प्रमुच्य प्रब्रूयादेतां दिशं गन्धारा एतां दिशं व्रजेति स ग्रामाद्ग्रामं पृच्छन् पण्डितो मेधावी गन्धारानेवोपसम्पद्येतैवमेवेहाऽऽचार्यवान् पुरुषो वेद॥" "Just as, my dear, some one bringing a person from the country of Gandh*a*ra with his eyes bandaged, leaves him in a (forest) devoid of human beings; and just as he, in that position would shout out towards the east or the north or the south or the west, 'I have been brought here with my eyes covered and left here with my eyes covered;' just as thereupon (some kindly disposed person) might take away the bandage and tell him, 'In this direction is Gandh*a*ra, go this way'—whereupon he, having got this information and being intelligent would reach Gandhara by asking his way from village to village, even so in this matter (*viz.*, the realisation of Brahman) does one having a teacher, know." Chh*a*ndogya, VI. 14, 1, 2.

An infinite number of passages might be cited from the Hindu Scriptures in illustration of the force and significance of the *Pranava*, we will restrain ourselves to the selection of a very few from them.

From the Mundakopanishad—

"Seizing as the bow, the great weapon of the Upanishad, the arrow sharpened by devotion should be fitted to it; and drawing it with the mind intent on the thought of that (Brahman), oh dear one, hit that undecaying, indestructible Brahman as the aim. Pran*a*va is the bow, Atma (*i.e.*, the J*ivatma* the individuated Self bound by limitations) is the arrow, and Brahman is the mark to be aimed at; (that aim) should be hit by one with an unswerving mind free from all blunders (such as the desires). He should become identical with (Brahman) as the arrow (becomes one with the object it has pierced through). In (the heart) where all the arteries enter just as the spokes enter into the nave of a wheel, this,—(the J*ivatma*) moves—growing manifold (*i.e.*, being limited by the mind, the multifold qualities of mind such as anger, pleasure, &c., are ascribed to it). Meditate (on the *Atma*) by (the syllable) Om. Let it fare well with you that you may cross over the darkness (of Avidy*a*). (*c*)

The Man*d*ukopanishad says, "तद्विज्ञानार्थं स गुरुमेवाभिगच्छेत् समित्पाणिः श्रोत्रियं ब्रह्मनिष्ठम्"—"In order to know that (Brahman) one should go with some sacrificial fuel in his hand to a Teacher learned in the Vedas and intent on Brahman." Man*d*ukopanishad—I. 2. 12.

*A*charyya *S*ankara in his commentary on this writes, "शास्त्रज्ञोऽपि स्वातन्त्र्येण ब्रह्मज्ञानान्वेषणं न कुर्यात्"—"Even one versed in the *S*astras should not seek after the knowledge of Brahman independently."

(*c*). धनुर्गृहीत्वौपनिषदं महास्त्रं शरं ह्युपासानिशितं सन्धयीत। आयम्य तद्भावगतेन चेतसा लक्ष्यं तदेवाक्षरं सोम्य विद्धि॥ प्रणवो धनुः शरो ह्यात्मा ब्रह्म तल्लक्ष्यमुच्यते। अप्रमत्तेन वेद्धव्यं शरवत्तन्मयो भवेत्॥ अरा इव रथनाभौ संहता यत्र नाड्यः स एषोऽन्तश्चरते बहुधा जायमानः। ओमित्येवं ध्यायथ आत्मानं स्वस्ति वः पराय तमसः परस्तात्॥ Man*d*ukopanishad II.—3, 4, 6.

MISCELLANEOUS.

Glossary of some Boer Terms.

AFRIKANDERS.—This term is now restricted to those persons in any part of South Africa who speak the South African Dutch (*taal*) and who sympathize with the Boers.

BILTONG.—Strips of dried meat which the Boers use as provender when in the field.

CAPE BOYS.—Blacks from Cape Colony.

COMMANDO.—A force of burghers commandeered (called out for war).

DONGA.—A water hole.

DRIFT.—A ford in a river.

KAFFIR.—A black person, regardless of race.

KLOOF.—A gorge cut by a stream.

KOPJE.—A stone or rock in the veldt.

KRAAL.—Native village or town of wicker and mud huts. It is often surrounded by a stockade.

KRANTZ.—A valley or cleft lying between two hills.

KURVEYOR.—A rider in charge of an ox-wagon. (Pronounced cur-vay-or).

LAAGER.—A defensive work. It is generally formed by a circle or square of wagons, or rocks.

LANDROOST.—A Boer magistrate.

NEK.—Lowest depression between two hills.

PONT.—A ferry over a river.

POORT.—A pass between mountain ranges. (Pronounced *port*).

RAAD.—See under Volksraad.

RAND.—Short way of referring to Witwatersrand (white water's ridge).

SCHANTZE.—A breast-work of stones.

SLUIT.—A ditch or small watercourse on the veldt, usually dry. (Pronounced *sloot*).

SPRUIT.—A place which in the rainy season is a watercourse.

STOEP.—The raised sheltered place for seats in front of Boer houses.

TREK.—A migration across the veldt on horseback and in wagons drawn by twenty or more oxen.

UITLANDERS.—Foreigners of various nationalities. People not of "ons" (our) land. The population of the Transvaal consists of the Boers, the natives and the Uitlanders, or out-landers.

VELDT.—The open country.

VELDT CORNET.—A (field) district official.

VLEI.—A pond or lake of small dimensions. (Pronounced *flay*).

VOORLOOPER.—The man or boy who leads the front cattle of a team of sixteen animals, which draw a wagon. (Pronounced *fore-looper*).

VOORTREKKER.—The older generation of Boers who explored the country lying north of the Transvaal since 1837.

VOLKSRAAD.—The People's Council, consisting of the First Raad and Second Raad, which form the Transvaal and Free State Parliaments.

* * *

How to Pronounce Chinese Names.—Chinese words and names are not difficult to pronounce approximately for the transcriptions of them from the Chinese character are usually phonetic. *A* generally has the sound of a in *arm*, e of a in *fate*, i of e in *scene*, o of o in *nor*, u of oo in *fool*. The consonants are generally used as in English. These sounds are not exact, but they are sufficiently close. A number of words have become, to a degree, anglicized—as Peking, Shanghai, etc.—but in the following list we are faithful to the Chinese pronunciation:

Peking, Pay-kin'g.
Tientsin, Tee-en' tseen'.
Taku, Táh-koo.
Pechili, Pay-chee-leé
Shan-Hai-Kwan, Shahn-hahee-Kwahn.
Chefoo, Chay foó.
Wei-hai wei, Wáyee-háh ee-Wáyee.
Newchwang, Nyóu-Chwahng.
Kiao Chow, Keeow-Chow.
Hoang Ho, Hoáhng Ho.
Yang-tse-Kiang, Yáhng-tsay-Keeáhng.
Nanking, Náhn-Keéng.
Shanghai, Sháhng-háh ee.
Li Hung Chang, Lee Hoong Chahng.
Tuan, Too-áhn.
Kung, Koong.
Tsung-li-Yamen, Tsoong-lee-Yáhmen
Nieh, Neé-ay.
Kang-yu-Wei, Kahng-You-Wáyee.
Kuang Hsü, Kwahng-Hsü (German ü.)

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THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

WHOLE NO. LIII. CALCUTTA, DECEMBER, 1901. No. 5. VOL. V.

METHODS OF TRAINING OF YOUTHS IN ANCIENT INDIA—V.

[*Continued from page 101, Vol V.*]

We find many things all testifying to the fact that the growing spread of Buddhism worked various changes in the ancient method of teaching. From history we learn that from the fourth to the seventh century A. D., many learned Buddhist pilgrims came from China to India with a view to learn the truth of religion. These great men, from their long residence in India, obtained a sufficient knowledge of the manners, customs and religion of India and on their return to their native land composed several works upon them, which have been partly translated into English. From these *English* translations we are able to know much about the Buddhist age of India.

In India we, Bengalis, now-a-days boast of a greater improvement in education than other races; but is it not a matter of shame that we have not yet translated into our own mother-tongue any of those Chinese works and thereby fed our own literature? Are we not thus losing our *prestige* in the intellectual world by not following in the footsteps of these great Oriental scholars of Europe?

In order to satisfy their keen thirst for knowledge the great Buddhist pilgrims, Shih Fa hian, Sung yun, Hiun Tsiang and others after crossing inaccessible mountains, mighty rivers and dangerous deserts came over to India with a view to see all about it with their own eyes and what they saw they recorded in their own tongue and thus served their mother country. But we are so worthless and indolent that we have not yet made a single translation of any of

the Chinese works into our own *mother-tongue*; we have hitherto evinced no real desire to know the state of our own country as depicted in those Chinese works. To have a knowledge of the state of India in the Buddhist age we have now mostly to depend upon the works of western scholars, notably those of S. Beal, G. Edkins, V. Fausball, &c. The laborious researches of these European scholars making known through European languages accounts of the Buddhist age in India are highly worthy of praise from every Indian antiquarian; and it is, no doubt, one of our most pressing duties to enrich our mother-tongue by following in their footsteps. To impress this duty upon the minds of educated India I have been obliged to make this digression from the main topic.

Among the Buddhist pilgrims the three above-mentioned, *viz.*, Shih Fahian, Sung yun and Hiun Tsiang have written at length upon the method of teaching in their days in India so that in this discourse I shall chiefly depend upon their writings. From what they have related it is obvious that up to the seventh century A. D., the main current of the *ancient* educational system of India still preserved its strength, although changed in its course from what it was before the rise of Buddhism. The ancient rule which had made the Brahmans alone fit to be preceptors of youths was not now observed in its entirety. Two competing methods of instruction had begun to tell on the people;—on the one hand, the old method of teaching with the Brahmanas as leaders and teachers now about to be extinguished, and on the other, the new method with the *Sramanas* taking the lead, ready to spread itself, and instinct with the impulse of new enthusiasm;—these by sharply dividing the student world into two camps watered, as it were, the tree of future discord between Hinduism and Buddhism which was about to strike root.

These two methods differed from each other both in respect of the subjects and methods of study and the rules to be observed by the scholars. We give below what Hiun Tsiang of the seventh century A. D. has said about the Buddhist method of teaching, which will give our readers a better idea of what we have been saying. Hiun Tsiang writes: "Boys began their studies when they were seven years old or so and had to learn five subjects in order, the first of which was phonetics comprehending स्वर (or accentuation), प्रकृति (root-words), प्रत्यय (terminations) and कोष (vocabulary)."

The second branch of learning comprised the arts, both fine and mechanical, and included also a knowledge of particular instruments useful in those arts; as also a full knowledge of the stars and planets,

the days, the tithis lunar days and all related things, together with such further knowledge of astronomy as would help the student in the preparation of the almanac.

The third subject for study was the medical science which comprehended such topics as the following:—How to preserve in age the physical beauty of youth; how the strength of the body could be maintained; the efficacy of using such stones as पद्मराग, नीलकान्त and the diseases to be averted by means of each; the properties of various substances and the conditions suited to their use, &c.

The fourth subject was हेतुविद्या or the science of Reasoning Logic. It is the science which considers the nature of reasoning, detects fallacious arguments, shows the different kinds of प्रमाण or proof and the different kinds of प्रमेय or propositions.

The fifth subject was अध्यात्मविद्या or spiritual sciences and spiritual philosophy. It was divided into five parts. These were: (1) The vehicle of Buddha; (2) the vehicle of Bodhisattvas; (3) the vehicle of the Pratyeka Buddha; (4) the vehicle of the ordained disciple; and (5) the vehicle of the lay disciple. This अध्यात्मविद्या comprising these five parts forms the true Buddhist School of Philosophy; for from what Hiun Tsiang has said about it, it is evident that from instruction imparted to them on this subject principally the Buddhist students derived their knowledge of such difficult topics as the origin and end of the universe, cause and effect, the invidual soul (*Jiva*), संसार or changeful life, salvation, &c.

Then, after describing the subjects of study for the Buddhist pupils, Hiun Tsiang describes those for the Brahmana pupils; "But the Brahmanas keep to their study of the four Vedic Scriptures. Of these four Vedic scriptures, the first is called "Shan;" and he defines the word *Shan* as longevity, treating of the means of preserving life, of maintaining the natural health and other topics.

The second Vedic scripture goes by the name of "See" treating of the proper sacrifices, the proper way of sacrificing animals, the sacrifices suited to the occasion and so on.

The third Vedic scripture is called "Ping" which means "peace or Regulation." This deals with the ways of warfare, of collecting recruits and the ways of drilling them or training them in the arts of war, with dress, with the ways of decorating households, of making tents, &c.

The fourth of the Vedic scriptures is called "Shee" which means Secret mysteries containing various lessons in physical science, in arts and industries and medicine."

From what Hiun Tsiang has said about the methods of study of the Brahmana students it is evident that they had in his age considerably changed from what they were in the age of the Samhitas and Kalpa Sutras. During his time the six supplements (अङ्ग) of the Vedas, *viz.*, Orthography, Prosody, Grammar, Philology, Astronomy and Rituals were not equally taught. In the four Vedic scriptures mentioned by Hiun Tsiang we do not find included any of the above Vedic supplements excepting Astronomy and Rituals, while we find Politics included in them although it was not counted as one of the six Vedic supplements but included in the vedic उपाङ्ग's. Besides, we do not find in the list given by Hiun Tsiang, the Samhita division of the Vedas clearly distinguished from the Upanishad portion; which leads to the conjecture that in his time men's minds were being drawn away more and more towards Buddhism as it was spreading so that those who did not renounce Hinduism did not also hesitate to follow as far as possible Buddhist manners and customs in many matters. For this reason, the leaders of Hindu society were obliged to change to some extent the ancient methods of educating their children. A somewhat changed course of studies, therefore, became a necessity enabling Brahmana students to successfully compete with Buddhist students in the field of social and religious work and to maintain the predominance of their order with all the strength of the new learning. I am inclined to think that for these various reasons no mention is made of the science of pronunciation (शिक्षा) in the list of the Hindu student's subjects of study as given by Hiun Tsiang, as also of the sciences of Prosody, of *Purva Mimansa* and Vedic Grammar.

PRAMATHANATH TARKABHUSHAN.

MEANS OF HIGHER CULTURE: NEEDS OF MODERN INDIA.

Readers of the *Dawn* are aware that the journal is intended to be an organ of Higher Eastern and Western Thought. The advent of the British in India followed by the sure, if gradual, introduction of Western appliances in every department of thought and life has been productive of one great good. It has effected a sort of an awakening of the national mind; and this awakening has had already its several stages. In the initial stage, the awakening manifested itself very rudely indeed by threatening to subvert old landmarks, efface old boundaries and after making a clean sweep of all, after the fashion of another but a bloodless French Revolution, working to build,

amidst, it was thought, better environments and with better prospects of success,—a new social fabric. That state of things has passed away; a blind admiration for the West has given place to a more enlightened enquiry into the greatness and strength of Western life and thought, into the secrets of the success of Western civilisation in fact. While along with it and partly also by reason of the same process, by reason of the newly-awakened spirit of enlightened critical investigation, —a newer light on the greatness and vastness and the essential characteristics of eastern life and thought in its higher phases is daily dawning on the minds of all enquirers educated in Western learning. Higher Eastern Thought—by which we specially refer to Higher Hindu Thought—is gradually, notwithstanding many drawbacks and difficulties, being better understood and appreciated than formerly; and people are beginning to find out meanings for, and supreme usefulness in, things and beliefs which were formerly despised, or were relegated into the list of out-worn, forgotten creeds. As the *Pioneer* writing specially on the subject of the *Spiritual Welfare of India*, in its issue of December 10, 1897, puts it very pithily, indeed—(Western) "scholarship has illuminated the religions and philosophies of the East till we look back with a contrition that is almost oppressive, to the imbecility of that early belief which lumped them all up together as pagan superstitions." This, coming from the mouth of the Westerners themselves, shows very clearly indeed that the days of haughty irreverence towards, of scorn of all Eastern ideas and principles are past. It is, however, needful to remember that the impulse towards investigation of higher Eastern problems has come from the West; that the new life which is throbbing in our hearts is, judging from all appearances, come from the West. India is now in its transition stage and it would be very necessary, indeed, to remember that just as the present-day Hindu life has its brighter and darker aspects, so also the modern Western civilized life is not a thing of unmixed beauty, a joy for ever; but that it *also* is evolving towards a higher ideal, that it has not yet been able to free itself from many serious and very glaring defects and weaknesses. The life and thought of the West has been slowly but steadily pouring in upon us and it behoves us not to sit with eyes closed, but to resist the invasion where it is hurtful, and to welcome it in those of its aspects which are sure to lead to a better understanding between East and West, to a mutual and better appreciation of all that is great and good in the civilisations of both. The politics, the commerce, the economics, the social life, the spiritual beliefs and the science of the West are verily in our midst and in all their growing strength,—and are attacking Hindu life, ideas, principles in their very

strongholds. It is very necessary, therefore, that educated India should learn that Indian life and thought is in a state of evolution, that, therefore, it must know which aspects or how much of Western life and thought would have to be welcomed and assimilated as helpful to the growth of our own civilisation; and which or how much of them have to be rejected as pure foreign matter, as unsuited to help on the growth of a superior type of national life. This process of weeding out the noxious elements in Western civilisation, the winnowing of the chaff from the grain, seems to be very necessary in the present-day states and in the interests of both Eastern and Western civilisations. A comparative study of these in their various departments is accordingly a vital necessity. The politics, the science, the society, the history, industry and commerce, the spirituality of the West, have to be probed into more deeply than it has hitherto been possible and that by us, and from our standpoint alone. For our national life is deeply intertwined with a national spiritual ideal and the growth of that life is only possible or desirable on the sole condition of a growing spiritual ideal affecting our daily life and thought. With this wider and more enlightened understanding of all that is best and noblest in the life of the West and a surer grasp of all that is weak and defective in that life, should we be able to trace and direct our paths to a certain and permanent goal of individual and national peace, happiness and strength. A new race of scholars and thinkers have to be raised or created from amongst the most enlightened of our public men and from the growing band of distinguished graduates from our various Indian Universities. Our colleges and other seminaries of instruction would have to cease to be mere automata, acting under impulse from without; and amongst the very first things that they will have to encourage in their boys would be a habit of *extra*, healthful, invigorating reading in the various branches of higher Western and Eastern life and thought. College libraries will have henceforth to be used as instruments of higher culture by professors, lecturers and scholars alike; and scholars, books and teachers will begin to act and react on one another in a fashion hitherto unknown in India, but notorious in the British and specially in the German Universities. Till that time comes, each scholar, and each public man who feels that he has a part to play in the coming adjustment of moral, intellectual, political, social and industrial relations between the East and the West must set himself to the task of learning all that could be known of the higher life and thought of the West and of the East, and, like Franklin of old, must begin to build up, each for himself, a library of such books as

would be helpful to a better understanding of Western and Eastern thoughts and ideals. So far, however, as the West is concerned, the enterprise of British publishers has never been found wanting, and anybody who has the wish and the needful resources, would not find it very difficult to help himself in his studies and researches. The *twenty-five* volumes of the Encyclopædia Britannica, for instance, do by themselves constitute a *library* of no mean value; and even if the thousand and one books constantly issuing from the British and continental press were wholly left out of account, would still continue to command supreme interest, and would afford a guide and help to the scholar, thinker and public man in India such as could hardly be done by any other single collection of books. And it may very well be asserted without being guilty of any over-statement that for a person to call himself educated in the learning of the West with a real desire to understand, appreciate, or master the forces and influences that like one continuous stream are daily pouring in upon Hindu Society and metamorphosing it to its very depths—for him to pride himself upon such education without at the same time having had opportunities of consulting such ideal books of reference as the Encyclopædia would be to indulge in an unpardonable paradox. Under the auspices of our Indian Universities, students hardly find it *paying* to consult books of reference; but when the time comes, as we expect it to come under the impulse that Western education in India is likely to receive at the hands of a vigorous-minded Viceroy, assisted by a noble hand of lieutenants, College libraries will gain in value as a most effective means of culture, and every higher scholar will find it *paying* in every way to consult ideal books of reference like the Encyclopædia Britannica.

EDITOR.

THE SECRET OF LONG LIFE. - III.

[BY JOHN F. MORGAN, CHICAGO.]

[Sometime ago Mr. John F. Morgan of Chicago was pleased to send us an article entitled "Secret of Long Life—I." (*vide* pp. 18-21. Vol. *V. Dawn*) in which he referred to certain Breathing and Concentration exercises" as the most scientific means of prolonging one's life and attaining health. In the October, 1901, number of our journal (pp. 90-96, Vol. *V.*) we went into some greater detail into the scientific principles involved in the matter of these exercises and were, we hope, able to show that at bottom the principle of Breath and

Concentration Exercises was all sound, and that those exercises had the sanction of the Hindu *Sastras* or Scriptures. In the present article Mr. Morgan has dealt more fully with the details of the several Breath and Concentration Exercises, which he declares would help the pupil a great deal in attaining health and longevity. With these words we beg to introduce the article. *The reader* is specially requested to re-read the first article (pp. 18-21, Vol. V.) before proceeding with the present;—otherwise much of it might appear meaningless and even absurd.—*Editor.*]

First Exercise.

Sit erect in the chair, with muscles relaxed, weight of lower limbs balanced on the balls of the feet; look at (with concentrated thought) a dark object not further than seven feet nor less than three feet, to steady the nerve of the eye. Breathe in "Ga Llama," (*Ga* = centralising; *Llama* = life-principle) the life principle, which is in the oxygen of the air, to centralize the tissues and to build up the inner life to rejuvenate the physical body. As you exhale, hold the thought that you exhale all morbidity or effete matter. Breathe evenly in and out with the upper lobes of the lungs while you count seven.

Exercise in this way three times a day, for a period of three minutes each.

This will develop the eye-sight.

[Neither the second nor the succeeding exercises should be taken until one has first devoted one week's practice to each exercise as given, to get into tune the body which, as we explained in our first article, responds like a musical instrument to rhythmic impulses both physical and mental.]

Second Exercise.

Stand erect with the weight of the body balanced on the ball of the feet. Look at some dark object intently. As you raise the body, clench the hands, allowing the fingers to touch the life line (—thumbs out—) and inhale. As you lower the body, open the hands and exhale. Count seven on both the inhalation and exhalation.

This also may be done three times a day.

It can be done as you are walking along street

This exercise improves the sense of hearing. The nerves of the feet connect with the nerves of the ear.

Concentration, polarization or self-centering is one of the most desirable attainments to possess, since we are all more or less liable to drift from one thing to another, and scattering our forces. . . . . . .

When taking the Breathing Exercises, you should sit or stand erect, with weight thrown upon the balls of the feet, the abdomen drawn in, and the chest thrown out, and spinal column always perfectly straight.

Third Exercise.

Sit in a chair with the feet comfortably resting on the floor; position same as in the first exercise.

Here we are taught the "power of thought" in holding the words, while the gaze is fixed.

Place a penny, or some small dark object to concentrate upon, on the floor two feet from your toes.

First, expel all the breath in the lungs. As you bend forward, bending only at hips look intently at the penny or object, inhale slowly, holding the thought: "**Breath** is **Life**!" Emphasize the word "Breath." The time occupied in repeating this thought mentally should equal the same space of time that it took in the previous exercises to count seven.

Retaining the breath count three, or repeating more quickly, "Life is Breath."

As you raise up slowly, preserve the same rhythmic movement, holding the thought "Breath **IS** Life."

Repeat the same process for three minutes: the exercise to be taken three times a day.

Hold the head and neck straight. Neither bend nor raise with a jerky movement and keep the gaze steadily fixed.

Fourth Exercise.

Take correct position, as in Second Exercise, and by the power of will, swing the hands in a circular direction, from right to left, in front of your body, the right first, then the left arm twelve times. On the thirteenth swing bend down, bending at the hip only, clench the hand, with the thumb touching the second finger, and touch the floor. Hold the knees stiff and do not allow them to bend.

This exercise is to be taken after each meal.

After breakfast, face the East.

At noon, face the South.

At 6 P.M., face the West.

And upon retiring, face the North.

We cultivate the sense of taste as we practise the exercises and follow the instructions.

HEAL YOURSELF AND BECOME CURED.

This is the birthright of all. Another may heal us, but we must cure ourself. As long as we lean on any person or thing it is liable to be removed and when the support is taken away, down we go.

In the Fourth Exercise we are taught how to generate within ourselves the Electric energies, so we can apply them to any part of the body. I have demonstrated the fact satisfactorily to myself.

Fifth Exercise.

Take position as given in Second Exercise.

Throw the arms straight out from the body, directly in front of you—with hands from wrist limped and relaxed as if lifeless. Then breathe (all breathing is to be done with closed lips, teeth separated, and through the nostrils). As you breathe, tense the muscles of the arm from the wrist to the shoulder. As you exhale, relax the muscles from shoulders to the wrist, with hand and fingers limp.

At the fourth inhalation you bring the hands diagonally around to the sides and inhale three times, tensing and relaxing the muscles as you inhale and exhale.

At the seventh breath you bring the hands around in front of the body, and turn the hands up; but be careful that the fingers do not lock together, since the electricity generated in the body by this exercise has a tendency to draw things to it. You should never shake hands or touch any object within three minutes after this exercise, and if done in the dark, you should be particular that no one sees your fingers for 3 minutes,—after which drop them.

This likewise is to be performed three times a day. *This exercise develops the sense of touch.*

A perverted appetite, caused by the eating of highly seasoned food, the drinking of fermented liquors, and smoking till the system was full of nicotine and the sense of taste as quite lost—(for many years my stomach was my God)—to be able to return to a natural and normal condition, by the simple following of the instructions given in this fourth exercise speaks louder than words, of the great good that may come to us if we will only let it.

This Fifth Exercise generates electricity and causes the phosphorus to appear on the tips of the fingers, as of a bluish yellow light.

Sixth Exercise.

Take a chair and kneel down at its back, with the spinal column erect. Place it at arm's length from you. (The rounds of the chair

must be round). Look at some dark object in direct line with the eye. As you take hold of the rounds you inhale, and tighten the grip on the chair rounds, still holding as you retain the breath; as you exhale, relax the hold.

Do this seven counts, in and out, three minutes at a time, but three times a day. But under no circumstances can you overdo it without disaster as the result.

All breathing exercises should be taken between sunrise and sunset.

The Sixth Exercise develops the sense of feeling, which is a finer or higher rate of vibration than touch and is an interior sense. All senses merge into memory.

Seventh Exercise.

This exercise develops the sense of Intuition. As the brain functions are unfolded they bring into activity the *seventy-two thousand nerve centers,* [in Hindu Scriptures, they are called *Nadis.—Ed.*] Opening up the Pineal Gland, and at the same time heightening the vibrations of sound, so that one naturally becomes not only more harmonious within themselves but with all Nature and the Universe.

Take this exercise as part of your ablution. Use a flat pan or bowl deep enough to permit the hands being immersed so that the water covers the wrist bone. First remove all rings from the fingers. Place a copper penny in the pan to generate electricity. Fill the pan with cold water from faucet, well or spring and place on table. Take correct standing position. Put both hands in the pan—thumbs not to touch. Take a deep rhythmic breath, counting seven, then exhale very slowly through the mouth as if you were going to blow out a candle, pucker the mouth the same as in whistling. Repeat this three times—once a day only.

Dry the hands by mopping them with a towel and then thoroughly drying them by rubbing one hand with the palm of the other, the left hand up, right hand palm down, rubbing in a circular direction, from east to west, or to ward yourself; then rub outside of right hand, turned down, with left hand palm up, always rubbing in a circular direction or towards yourself.

This exercise unfolds and opens up the brain cells and faculties, and tunes up the senses to a higher rate of vibration.

In the winter, when you want to get warm, inhale deeply and retain the breath, then exhale, taking care to inhale longer than you exhale.

In summer, when you desire to cool off, exhale longer than you inhale.

Never inhale while raising the arms, as it injures he tissues. Breathe, retain the breath, raise the arms, exhale as the arms are lowered.

Breathing in the different attitudes of standing, sitting, or lying down, affect different parts of the body in different ways.

"Perfect Being" consists in right breathing. We must first study and understand ourselves and then we can understand our neighbours. We must first desire to think and then WILL to do right.

Eighth Lesson

is devoted to the diet question, in which is explained the great advantage of a cereal, nut, fruit and vegetable bill of fare.

Full particulars can be obtained from Rev. Dr. Hanish, 1613 Prairie Avenue, Chicago.

TO CURE SLEEPLESSNESS.—Take a linen handkerchief or bandage, wet and tie same on the left ankle and cover with a silk handkerchief, then retire lying on the right side, and concentrating your thought upon the breath, watching its inflow and outflow. If you awaken during the night and find you cannot sleep, breathe through the left nostril, closing the right, and lying on the left side.

JOHN F. MORGAN.

ON DURGA, SIVA AND KALI IN THEIR EXOTERIC ASPECTS: A CRITICISM ON MAX-MULER.—III.

[*Continued from page 76, Vol. V.*]

PART II. THE DEVELOPMENTAL STAGES.

In our last article on the subject we dwelt at some length on the two earlier stages,—namely (*a*) the Development of Sat*i* into Um*a*, and (*b*) of Um*a* into Ambic*a*. We are now concerned with the third and fourth stages, namely, the Development of Ambic*a* into Durg*a* and of Durg*a* as the "Representative" in Max-Muller's words "of the Highest Divine Wisdom."

(*c*) DEVELOPMENT OF AMBICA INTO DURGA.

The Pauranic age of India followed closely upon the terrible revolution effected on the plains of Kurukshetra. It was an age of love, not of hatred, an age of illustration, not of originality, and it sought to amplify the crude revelations of the Vedas, so as to suit the same to all sections and communities of a diversified nationality; and Ambic*a*

was shewn in different forms, now with four hands, bestowing upon man the four requisites, virtue, wealth, enjoyment and salvation; now with ten, representing the ten principal deities as Dasa-Dik-palas, the preservers of the ten directions, beginning with Indra, the most brilliant of the Vedic gods. And we find Her also surrounded with a number of minor deities, representing the full force of the Vedic sacrifice. While also the kingly class were glad that the same Ambica had made common cause with their heroic forefathers, and fought battles on their behalf. Such a representative, all-powerful, all-comprehensive deity, Durga, was worshipped for the first time by King Suratha of the lunar dynasty. And so, She came to be loved, adored and worshipped as the foremost popular Deity and in deversified ways, esoteric and exoteric, subjective and objective, rational and irrational. But the true spirit of the Vedic remained intact; in other words, the propriety of a feminine mediation between man and God, the necessity of a divine maternal agency for human deliverance, the worship of God as Mother in fact, was never lost sight of

(d) DIVINE WISDOM OF DURGA.

Max-Muller finds it difficult to reconcile *his* theory of the non-Vedic, non-Aryan origin of Durga with undubitable *Sastric* testimony that Durga was the "representative of the Divine Wisdom." He refers to the Kena-Upanishad—[we have already quoted the passage (p. 75, Vol. V.)] and remarks that "as early as the time of the Kena-Upanishad, the knowledge of the true Brahma is embodied in a being called Uma-Haimavati. She is also called Ambica, Mother, Parvati, living in the mountains, and her husband is identified with Rudra (Taitt. Ar. 18)."

Now we have shown, as clearly as we could that Durga represents Agni, whence Her Vedic origin.

Agni was known to the Rishis of the Vedas as medhabi (having medha or intelligence). They declare Him residing in the Sun, as will appear from 1-2-10 Sama-veda,

ओँ आदित् प्रत्नस्य रेतसो ज्योतिः पश्यन्ति वासरं ।
परो यदिध्यते दिवि ॥

"As this Agni shines in the sky, men see the sun, in whom the eternal Indra resides."

Chhandogya Upanishad says,

असौ वाव लोको गौतमाग्निस्तस्यादित्य एव समित्,
रश्मयो धूमो हरर्चिश्चन्द्रमा अङ्गारा नक्षत्राणि विस्फुलिङ्गाः ।
पर्ज्जन्यः—पृथिवी—पुरुषः—योषा वाव गौतमाग्निरिति ॥

"O Goutama, the universal Agni has the Sun as His samit (fuel), the Rays as His smoke, the day as His brilliance, the moon as His charcoal, and the stars as His sparks. The cloud, the earth, the man, the woman, are all but manifestations of Him."

Agni is, therefore, according to the Vedas, an intellegent Being that illumines the Sun, in whom Indra, the commander of the clouds resides; and in whom is the Earth again, with Her men and women. When Durga represents that Agni, we may very well understand Her as the highest divine wisdom incarnate conceivable.

Agni was the most ancient of the Aryan gods. Scholars are of opinion that some Vedic names of Agni such as Yabishtha, Pramantha, Bharanyu and Ulka, were borrowed by the Western Aryans, and worshipped as Hephaistos, Prometheus, and Pheroneus by the Greeks, as Vulcanus and Ignis by the Romans, and as Ogni by the Sclavonians, for thousands of years. But when Buddha put out the sacrificial fire in India, the Greeks, the Romans, the Germans all of them did the same under Christ. Now that a revival of ancient sacrifices has taken place in India with God-Mother as Mediator between Father and Son, the time may come, when our Western brothers will see that it is neither the Father, nor the Son, but the Mother only that presides over and arranges for the world's responsible household.

KEDARNATH VIDYABINODE.

CORRESPONDENCE.

THE METAPHYSICAL CLUB,

200, CLARENDON STREET,

Boston, Mass.

Editor, *Dawn.*

DEAR SIR,

Feeling sure of your interest in the practical educational work which the Metaphysical Club is carrying on, we trust that you wil aid in extending that work by publishing in your paper the enclosed article, with such comment as will attract the widest attention and interest.

It would be a further help to us if you would kindly mail us a copy of the issue containing this matter.

Cordially yours,
The Metaphysical Club,
WARREN A. RODMAN,
Secretary.

MODERN SENSATIONALISM.

(BY W. A. RODMAN, BOSTON.)

Careful thinkers, who look beneath the surface for the roots and causes of events, are substantially agreed in the statement that *delineated criminality is a gigantic and threatening evil.* Its subtile and unappreciated power to demoralize furnishes strong reasons for some attempt to hasten the formation of intelligent public opinion regarding it.

While it is known that an ounce of prevention is worth many pounds of cure, society concerns itself greatly with the punishment of crime, but very little with its prevention. To pluck up here and there a thistle with the expectation of diminishing the crop, while the air which blows across the boundless mellow and fertile soil is thick with their winged seeds, would be no more illogical.

Everything grows by what it feeds upon, and positively, even if by unconscious degrees, takes on its quality. The law of suggestion and the certain trend of familiarization are no less sure in their working than is any principle in physics or mathematics. If, as is well known, the sanest minds cannot immerse themselves in a perverted environment without taking on a little of its slime and abnormity, what shall be said of unnumbered weak, immature, youthful and unsymmetrical natures who delve into a foul atmosphere which they inhale, absorb and become saturated with? What myriads of unbalanced minds dwell near the boundary line of some great temptation, crime, or disorder, who need but a little suggestive push to land them in the domain of overt action? What an abnormal gloating over horrors, and a morbid itching for notoriety is kindled! A thousand good deeds receive but little mention, but a crime is held aloft, magnified, spread out and turned about in the light, until it fills the mental horizon, and gradually becomes familiar, then natural, and finally almost inviting.

Youthful and pure consciousness is stealthily invaded, perverted, and poisoned. The criminal is unwittingly sur-

rounded with a halo of romance, gilded with notoriety, and his likeness printed upon the memory of unnumbered thousands. With impressionable natures a morbid heroism often becomes a consuming passion. A possible and uncertain future penalty has little or no weight as a deterrent. For the present it is as distant as the antipodes. It is well known that suicides come in epidemics in consequence of sensational examples. These statements include but a few psychological hints which might be enlarged upon indefinitely.

It is both useless and unwise to hold the purveyors of the press responsible for present conditions. Even the lowest recent degradations of "yellow journalism" and the publishers of tragic dime and nickel novels, and penny dreadful issues are amenable to public opinion and demand. Under the stimulus of neighbouring competition, theoretical "enterprise," but more than all upon *demand*, the present system has grown up by imperceptible degrees. Doubtless many of the better class of journalists, who through the influence of prevailing conventions have gone beyond their better judgment, would welcome a change in public sentiment which would lessen the demand for such mental pabulum. Psychological laws are exact and untiring in their operation. This fact needs to come into intelligent and general appreciation, and it is to be hoped that clergymen, teachers, authors, philanthropists and all leaders of thought will inaugurate such an educational campaign.

MODERN SENSATIONALISM IN THE EAST.—II

We are at one with the Secretary, Metaphysical Club of Boston, in every single sentiment contained in the above statement on Modern Sensationalism. The average educated man in modern times, specially of the West, is hardly able to bear the weight of strenuous thought and lives from hand to mouth in every department of its life. Unable to find any real gratification in the higher pleasures of the mind, or of the spirit, the average educated man of the West who has cultivated his wants to an (from the Eastern point of view)

abnormal degree, seeks amusement, excitement, and what little instruction he can in, the lowest degradations of yellow journalism, tragic dime and nickel novels, and the penny "dreadfuls." The disease grows by which it feeds on and altogether the "enterprise" of the publisher *and* the growing demand of the educated public, with their morbid hankering for more excitment, instead of for more light, are acting and reacting on one another to the detriment of the whole body politic. The physical invasion of the East by the West is as nothing to this moral invasion, under which the old ideal of plain living and high thinking, of simple virtues and quiet thought is declining and giving place to a morbid craving for the comforts of the flesh, to sensuous and sensual enjoyments, and in the higher places, to a craving for more money and more selfish power. Therefore it is that in India the average educated reader devotes what time he could spare, not to the cultivation of his mind, but to the gratification of his morbid tastes, both physical and intellectual. This morbidness, the vice of a mind debased, finding no pleasure within itself but only in external stimuli has not yet reached the height which it has attained in the West; but still the disease has been able to secure a foothold and the more enterprising of the Indian dailies and weeklies (English or vernacular) are beginning to learn the trick and pander to the more vicious tastes of the public; and it is getting to be too common now-a-days to find responsible editors and sub-editors of daily newspapers finding room for sensational stories from the West or for sensational criminal cases with a lot of filthy matter to the exclusion of more serious writing. And the evil, if it has not yet reached gigantic proportions in India, is yet most threatening in its near and distant prospects. For even now, school-boys in the higher forms and College under-graduates have caught the contagion and scandals of any kind, and smart writing with a touch of venom in it are more agreeable reading than leaders or paragraphs containing more serious matter. And libraries that have been growing up in different parts of towns all over India tell the same tale. History, poetry, science, economics, politics, in fact all higher literature, are hardly so much as touched by the general reader but only adorn the shelves; the higher class of students who have to appear in any University examination, only occasionally finding it necessary to make use of them. Reading of novels, but only of the debased sort threatens to become a passion, if it is not so already; the light, empty or the uneasy mind needing something, some excitement, to fill up its vacancy or to gratify its craving for more sensuous pleasure. Still for all that, the vices of gambling and drinking which owe their origin to the same desire, the same need for sensationalism, for

more excitement are not yet so rampant in India as in the West. In the great cities of the West, the three greater evils which have broken out, one may say, with the greatest fury are—(1) Prostitution; (2) Betting and gambling; and (3) Drink. Farrar writing in the *Fortnightly Review*, 1888 said:—"There are in London some 300,000 young men engaged in commerce; it is monstrous that they should be unable to return from their business at late hours without *incessant* and *disgraceful solicitations*." Again,—"It is difficult to realise how wide a hold the habit of betting has upon the young men of London. Beginning with sweepstakes—in almost every warehouse, shop and office for the Derby or the Oxford and Cambridge boat-races, it develops into an eager hunting for tips from *horsey* persons and *knowing* barmaids, and into absorbing study of sporting newspapers, till in servant-men, and clerks and shopmen it often culminates in fraud, embezzlement, forgery, theft, disgrace and final ruin. Gambling, too, with all its consequent evils is greatly on the increase. There is scarce a district in the metropolis in which gambling clubs do not exist. From Hampstead to Camberwell, from Bayswater to Clerkenwell, in side streets and main thoroughfares, it is not too much to say that wherever you may be standing you are not more than five to ten minutes' walk from a gambling house." Again,—"The monster evil of England is drink. I know no subject on which the national conscience is so fatally seared as it were with a hot iron. We spend on drink nearly 126 millions of pounds a year, and indirectly a sum almost inconceivable. In the London district about 30,000 are yearly arrested for drunkenness and of these 15,600 are women. The numbers may mean nothing to some readers, to others they mean crimes of every degree of violence and infamy, the fiendish kicking and beating and maiming of wives, the brutal ill-treatment of young children, the overlaying and slow-murder and starvation of tens of thousands of infants, the empoisonment of blood in another generation of criminals and harlots." The Secretary of the Metaphysical Club, Boston, will excuse us if we have been so lengthy in our extract; but we fear it must be admitted that *modern sensationalism* is a hydra-headed, many-faced monster, whose hunger is never appeased, whose maw never feels jaded; and the delight it feels in "delineated criminality" as the Metaphysical Club put it, is but one aspect, one sympton of a great, growing Western social evil. Our position in India is peculiar. We have an old and, as we hold it, a unique civilisation, whose watch-word is spirituality at the cost, if necessary, of temporal material greatness; and we are being invaded by a social invasion, in the triple aspect to which Dean Farrar refers, before whose subtle

workings, the physical onslaughts of the barbarians of old pale into nothingness. The West is itself wallowing in the mire of carnal enjoyments, with all the social evils attendant thereon; and is unable to save itself. It is threatening now the hoary citadels of spirituality,—it is displacing our native ideal of simple habits and high thought, and we are in fact, if we could look through the vistas of the future, in the throes of a death-struggle, a spiritual death-struggle. Missionary Christianity is anxious only to show returns of conversions, and is therefore a failure in India as a great social force. The higher non-missionary spiritual agencies of the West and the spiritual agencies of the East need to join hands to resist the growth of gigantic social evils which having taken root in one world threatens to overwhelm another. The co-operation of the East and specially of India would be also specially advantageous to the West. The ideals of the ancient religions of India are high beyond compare and are a living force there, and whatever may be said by dogmatic religionists of this or that part of her Theology, it is admitted on all hands that the socio-religious organisations of the Hindu people in particular founded on the broad basis of high ideals by Hindu sages has stood the test of time, has survived the shock of thirty centuries (according to Western computation) through endless vicissitudes, political convulsions, inter-racial conflicts and has preserved the historical personality of the whole Hindu people which is more than could be said of any other peoples in the West. The religio-social organisation of the East requires, therefore, a careful study; and if our American brethren with all the energy that is characteristic of them would think it worth their while to make a comparative, scientific study of Hindu and European societies, with a view to find out the scientific basis of enduring social polities, we could assure them that both East and West would share in the advantage. It the meantime, we beg to extend our most cordial greetings to these spiritual agencies in the West, which, like the body under the name of the Metaphysical Club, Boston, are anxious to uplift the life and thought of the world. And it is no joy to us that one such agency has thought fit to enlist the co-operation and sympathies of the far distant East in this matter of world-wide philanthropy. For it is clear that the East and the West cannot now live apart, that the two worlds stand or fall together. We again send out our heartiest greetings to the members of the Metaphysical Club, Boston.

EDITOR.

ON INFANT MARRIAGE *versus* DEFERRED MARRIAGE*: QUESTION OF LEGISLATIVE REMEDIES.—II.

[BY A BENGALEE CHRISTIAN.]

[*Continued from page 124, Vol. V.*]

But let us now assume for the sake of argument that the marriage of Hindu infants is no marriage at all and then consider whether it is such an evil as to call for legislative interference. This brings me to the second head of my paper.*

(*a*). QUESTION OF RATIFICATION.

In discussing this question, it is not necessary for me to say whether infant-marriage is the best form of marriage, or whether it is better than adult marriage. I am free to confess that I find the subject so difficult that I am not prepared to express any opinion on the comparative merits of the two systems. The task I propose to myself is a humbler one, namely, to show that the Hindu marriage is not such an evil as some people are apt to think, and that having regard to the traditions, the feelings and the present circumstances of the people amongst whom it exists, it is to be looked upon rather as a blessing than as a curse.

The last Census Report throws some light on this most important question. It appears from that report that in whole India, only about 10 percentage of the girls and a little above 3 percentage of the boys under 9 years of age are in a married state. I mention this fact to show that only in respect of these can it be said that there is no intelligent consent on the part of the parties united in martimony. I base this observation upon the fact that in England the age of intelligent consent for the purpose of marriage is 12 in a girl and 14 in a boy, and that a marriage solemnized between a girl of 12 and a boy of 14 is a good and valid marriage. Now, if 12 be the age of intelligent consent in England I should presume that it ought to be reduced to 9 in India, on the principles of the Majority Acts of the two countries, for whereas in England the age of majority is 21, in India it is only 18. It is clear, therefore, that whatever relief we may ask for and obtain, it can only apply to about 10 percentage of the married population of India. And then if you take in the element of ratification into consideration you will not find a single case where the infants who had been under the age of 9 or 12 or 14,

* This paper was originally read by the late Babu Joygobind Shome, a Bengalee Christian, at a meeting of the Calcutta Missionary Conference held on the 31st June, 1887.—Ed. Dawn.

did not ratify it when they arrived at the age of intelligent consent. If the absence of consent invalidated the marriage, ratification, in such a case could mean the giving of that consent after the parties to it had attained the age of intelligent consent. Now, the age of intelligent consent, even according to English law, is only 14 in the case of a boy and 12 in the case of a girl, and if you applied these ages to Hindu boys and girls, you would not find a single case, where a boy at the age of 14 or a girl at the age of 12 did not wish to have his or her wife or husband to whom he or she had been married in infancy. Practically, therefore, if we obtained such a law, with the ratification clause inserted in it, it would remain wholly inoperative. It would be worse than the Hindu Widow Re-marriage Act. I ask how many Hindu widows have taken advantage of the beneficent provisions of that Act, inspite of all that men like Pundit Ishvar Chunder Vidyasagar have done all that they could to recommend it to their countrymen? I do not think we could enumerate even a dozen marriages of Hindu widows under the provisions of the Act, though the case of the Hindu widow we regard a very hard case and that a harder one we could not imagine. Is it not then simple madness for us to expect that if Government passed a permissive Act to avoid the obligations of infant-marriage that a single Hindu would care to avail himself of its provision. A Hindu girl would rather die than think of re-marrying; and as for a Hindu boy who dared committing such an outrage upon the Hindu community they would make a short business of him by his immediate expulsion from their society, the final result being that the boy will become an outcaste, and the unfortunate girl a widow for life. And all this, for what? Not for the salvation of an immortal soul, not for the sake of performing a religious duty, not for discharging a moral obligation, but for gratifying selfish ideas of connubial happiness. St. Paul said that such things would happen, in the last days, when men would be lovers of their own selves, lovers of pleasures more than lovers of God; but I fear we shall hasten those days if you went in for such heartless legislation. I am sure, that if we went in for such legislation, we would make the name of the Christian Missionary stink in the nostrils of my Hindu countrymen.

In the second place, such a law would convulse and unsettle the whole Hindu Society and produce in a greater measure some of the very evils which you seek by this legislation to avoid. You would seek to avoid, for instance, precocious development and untimely maturity of boys and girls, but what do you think would be the natural

consequence of a law which in the case of infant marriages required subsequent ratification to make them complete and indissoluble? In most parts of India, and even in Bengal *with certain classes of Hindus*, the boys and girls, though married in infancy, are never allowed to live together until the girl reaches puberty, or until, what in Hindu phraseology is termed, her "second marriage" took place. But if you had such a law as is proposed, it will be the interest of the parents of the parties concerned, especially of the bride's father, to bring them together as soon as possible to obtain ratification and prevent the dissolution of the union. But this will be a comparatively tolerable evil compared with a new species of intolerable oppression or extortion which such a measure would necessarily produce in the country. The people now groan under the oppression of the policeman, of the tax-collector, and of the zemindar, but then they would have a new oppressor in the person of the bridegroom's father or guardian who would not hesitate, in a corrupt and sinful world like ours, to extort money or presents from the bride's father by the threat of annulling the marriage and sending his daughter to a perpetual widowhood. Further, the marriages being voidable, the cares and anxieties to which the parents and guardians would become a prey during the voidable period, can better be imagined than described. In short, I cannot conceive of a single redeeming feature in the proposed legislation. If infant-marriage itself be bad, if it be an unmitigated evil, then we should ask Government for such measures as would stop it. This is what Mr. Malabari and his friends are urging upon Government but ment, it seems, is not prepared to accede to their wishes.

In the third place, the proposed legislation would hold out a premium to false conversions. There will be cases of young men who would embrace Christianity or Brahmoism with no other motives than to get rid of their Hindu infant wives and marry educated and accomplished Christian or Brahmo girls. Already, Native Christians are taunted with embracing Christianty for the sake of marrying *Mem Sahebs*. This charge is now false, but then it would have some Governcases to support it and thus our holy religion will be maligned.

(*b*) QUESTION OF LEGAL ABOLITION OF INFANT MARRIAGES.

These are some of the reasons which I would urge against legislation for purposes of ratificated of marriages contracted during infancy. They do not, however, dispose of the simpler and larger question, whether infant-marriages should be abolished by legislative enactment. I shall now, therefore, place before you a few

reasons why I think legislative interference impolitic, improper, and uncalled for.

As a rule I would have no social reform under legislative pressure, especially in a country where the people have no representative institutions, and where they are governed by persons who are aliens and strangers, and who have little or no sympathy with their national institutions. The object of Government is the protection of life and property, and social reform falls within its province only when such social evils exist as are found to be injurious to individual or national life and morals. Infanticide, the rite of suttee, &c., came to be regarded as such evils, and Government was fully justified in dealing with them by legislation, whether the people wanted such legislation or not, but infant-marriage cannot be said to be an evil of that description. Infant-marriage has prevailed in India at least from the days of Manu, that is, for well-nigh three thousand years and the Hindus as a body have up to this day remained content with the institution. They have not, *to any appreciable extent*, suffered in physique nor deteriorated in morals. Three thousand years are a pretty long period, but all these years have not revealed to us any great evils as the necessary effects of the institution of infant-marriage beyond perhaps a little too rapid increase in population, the regulation of which is the great problem with the socialists of Europe. No doubt, we hear of the stories of the giants of olden times, who removed mountains and leaped over oceans; that race, if it ever existed at all, has ceased, whether as a necessary consequence of infant-marriage or not, I am unable to say; but this much is certain that India did not enjoy a monopoly of these giants. Greece and Rome and Troy had their giants and their giant stories, and that by the time these great personages disappeared from India they also disappeared from other countries where there was no infant-marriage to scare them away. Now, if the Hindu nation has really physically deteriorated on account of infant-marriages, compared with other nations, then let the proof of this deterioration be given before our building any theory upon it. It is not enough to quote the opinions of doctors and others, as to what is likely or not likely; facts should be stated, such as, that mortality has increased, weight has diminished untimely deaths have become more frequent, &c., &c. But until this proof is given, we have no right to ask for a law which does not exist even in England. There are reported cases of infant-marriages in that country, but the English legislature did not think it right to make them penal; it made them only voidable.

THE HINDU SOCIAL CONSTITUTION.

Now having described what, in my humble opinion, falls within the province of Government, I must ask my readers to bear in mind that *infant marriage forms a necessary part of the entire Hindu social system, and that we cannot dispense with it without doing great injury to that system.* As most of us are perhaps aware that a Hindu family is essentially joint, and that our law courts have to make this presumption whenever a case affecting a Hindu family comes up before them. Now, a Hindu family being joint in food, estate and worship—this being the essential condition of every Hindu family, a Hindu thinks it his duty to live not so much for himself as for his family. His is a life of great self-denial. A member of a Hindu joint family earns, say, Rs. 1,000 a month, but he thinks it his duty to put his whole income into a common hotch-pot with the earnings of other members who earn only Rs. 10, 20 or 30 monthly, and then after having made all the joint expenses of the family from this common fund, the surplus, if any, is handed down to their children or grandchildren in equal shares, giving us a beautiful illustration of the Scripture text—"*He that had gathered much had nothing over, and he that had gathered little had no lack.*" But this self-denial is amply rewarded in other ways. The Hindus have no Annuity Funds, no Life-Assurance Societies, no Savings Banks, no Hospitals, no Leper Asylums, but the principle of mutual help which reigns supreme in every family, confers upon him in some measure the benefits of these noble institutions, which constitute the glory of modern civilisation. That while the motto of every Englishman seems to be— 'Every man for himself and God for us all,' that of the Hindu is—'Every man for his family'; and you know what this family means. It does not mean his children only. It includes his brothers and sisters, his cousins, his nephews, his nieces, his mother, his aunts, his sisters-in-law, &c., &c. He does not think it a hardship to live and labour for them, and to spend all his earnings upon them. He considers this to be his duty and privilege and he glories in it. Such a man, when he marries, marries not so much for his own comfort or happiness, *as for that of the whole family.* His wife must not only be a help-meet to him but a helper and agreeable companion to his mother, his widowed sisters, his widowed aunts, sisters-in-laws, &c. That is, *either he or his guardian has to consider all this before entering into a matrimonial relation.* Now I ask—could a girl of 18 or 19, or a young woman of 25, her habits and tastes all formed, quietly enter into such a family and prove herself a peaceful and agreeable member? Would she not

become, in nine cases out of ten, a source of trouble? I think she would. Already Hindu households, with *infant wives* whom you could in that tender age, train up in the way they should go, are not always the very models of domestic peace and happiness, but the moment we introduce *woman-wives* into them, we make the joint family system an intolerable nuisance. Perhaps my opponents will say that the joint family system is also bad. If so, then they should try to remove it first by legislative interference, and not rail against infant-marriage. And it is also clear that when the joint family system is gone, when each man would labour and live *for* himself, and *by* himself, he would not seek an infant wife—he would seek one who could take care of him, look after his goods and chattels in his absence, and be his financier and accountant. In such a system, an infant wife has no place, but so long as the joint family system continues among the Hindus, we should not deprive them of the advantages which infant marriage brings in with it. We should not put new wine into old bottles. The bottles will burst. If we are prepared to memorialise Government for the abolition of the joint family system, *then* by all means, *but not earlier*, let us go up before it with another petition praying for the abolition of infant-marriages.

IN TOUCH WITH THE SADHUS: A SCHEME OF SERVICE.

While it is a fact that in our Tirthas, Sadhus do not usually suffer much for want of food, it is none the less true that in very few indeed of our holy places, particularly those situated in out-of-the-way regions on distant hills there are no arrangements to look after them when they are ailing and are disabled. Sadhus, as a rule, live apart from one another, each in his own little hut. It can, therefore, be easily imagined how much suffering—which, however, some little loving service and care may alleviate—they undergo in their seclusion, when laid up with illness. They are rendered physically so helpless that it is not improbable that some of them should suffer the most intense agony for want of some little water, and that there may be many who die through sheer weakness caused by disease, thirst and hunger.

In this state of things, the Ramkrishna Brotherhood of ascetics acting under their leader, Svami Vivekananda, have as a preliminary measure, started a home, at Kankhal, near Hardwar, early in July 1901, for the relief of the extremely sick and helpless Sadhus and pilgrims.

One sure sign of spiritual development in man is his increasing capacity of realizing the helplessness and distress of others and anxiety to remove them so far as possible. The succour of those, who keep the spiritual

atmosphere of India from losing its ancient power and purity, who keep alive the light of life and truth in times of spiritual decay and darkness, such as emphatically the Kali Age is, becomes, therefore, one hardly needs to say it, the supremest duty and a most useful charity. It is earnestly hoped that very few people will hesitate to contribute their share to the up-rearing of an insitution of such palpable practical good and spiritual promise.

Donations and subscriptions will be thankfully received and acknowledged by me in *Prabuddha Bharata*, the monthly English organ of the Brotherhood, published at Mayavati, Almora, Kumaon.

Advaita Ashrama, VIMALANUNDA,
Mayavati, Kumaon. Joint Editor, *Prabuddha Bharata.*

SVARAJYA-SIDDHIH—XXV.

[*Continued from page 126, Vol. V.*]

From the Chhandogyopanishad:—

"One should meditate on the syllable Om, the udgitha, because people chant, beginning with Om. Of all these things the earth is the essence; water is the essence of the earth, and the herbs of water; man forms the essence of herbs and of man speech is the essence; *Rik* is the essence of speech, Saman of *Rik*, and the udgitha is the essence of the Saman. This udgitha is the quintescence of all these essences, it is the supreme, deserving of the highest place (*i.e.*, is the most adorable like the supreme self) and is the eighth. What is this *Rik*? What the Saman? And what is the udgitha? This is being now considered. Verily, speech is *Rik*, the life-breath (Prana) is Sama, and the syllable Om is the udgitha. Now, this and that, speech and breath (Prana), *Rik* and Sama constitute a couple. This couple is united together in the syllable Om; when a couple unite together they gratify each other's desires. He verily becomes the gratifier of all desires, who, knowing it thus, meditates upon this syllable, the udgitha. And this is a syllable of acquiescence, and (in ordinary parlance) whatever one acquiesces in, he says 'Om.' Verily this acquiescence (signifies) prosperity. Verily he becomes a gratifier of all desires who knowing this to be so, meditates upon this syllable, the udgitha. By that is this threefold science maintained; with Om does one recite; with Om does one chant (a hymn of praise); and with Om does one sing. All this is for the adoration of this syllable by its glory and by essence. By that syllable do both perform actions—he who knows this to be so and he who does not know. (But) knowledge and ignorance are unlike each other. That alone, which is performed with knowledge, faith, and

with meditation as prescribed in the Upanishads, is more effectual. This verily is the explanation of this syllable (1).

Chhandogyopanishad—1st Prapathaka. Chapter I.

In the *Gita* *S*rik*r*ish*n*a says to Arjuna, "I am the Pra*n*ava in all the Vedas;" (2) also, "I will tell thee in brief that imperishable state which is declared by those versed in the Vedas, which persevering ascetics freed from all desires enter into and desiring which (people) perform Brahmacharya. Casting off this body, he who departeth, closing up all the gates (of the body, *i.e.*, the sense-organs), confining the mind within the heart, with his own llfe-breath (Pra*n*a) fixed in the head and having an unbroken continuity in yoga, reciting the one syllable Om which is Brahman, and exclusively thinking of me, attaineth the highest goal." (3)

Patanjali in his Yoga philosophy after first laying down that one of the best methods of fixing the mind is by the meditation of

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(1). ओमित्येतदक्षरमुद्गीथमुपासीत । ओमिति ह्युद्गायति तस्योपव्याख्यानम् ॥ १ ॥ एषां भूतानां पृथिवी रसः पृथिव्या आपो रसः । अपामोषधयो रस ओषधीनां पुरुषो रसः पुरुषस्य वाग्रसो वाच ऋग्रस ऋचः साम रसः साम्न उद्गीथो रसः ॥ २ ॥ स एष रसानां रसतमः परमः परार्ध्योऽष्टमो यदुद्गीथः ॥ ३ ॥ कतमा कतमर्क्कतमत्कतमत् साम कतमः कतम उद्गीथ इति विमृष्टं भवति ॥ ४ ॥ वागेवर्क्प्राणः सामोमित्येतदक्षरमुद्गीथः । तद्वा एतन्मिथुनं यद्वाक्च प्राणश्चर्क्च साम च ॥ ५ ॥ तदेतन्मिथुनमोमित्येतस्मिन्नक्षरे संसृज्यते यदा वै मिथुनौ समागच्छत आपयतो वै तावन्योन्यस्य कामम् ॥ ६ ॥ आपयिता ह वै कामानां भवति य एतदेवं विद्वानक्षरमुद्गीथमुपास्ते ॥ ७ ॥ तद्वा एतदनुज्ञाक्षरं यद्धि किंचानुजानात्योमित्येव तदाहैषो एव समृद्धिर्यदनुज्ञा, समर्धयिता ह वै कामानां भवति य एतदेवं विद्वानक्षरमुद्गीथमुपास्ते ॥ ८ ॥ तेनेयं त्रयी विद्या वर्तते ओमित्याश्रावयत्योमिति शंसत्योमित्युद्गायत्येतस्यैवाक्षरस्यापचित्यै महिम्ना रसेन ॥ ९ ॥ तेनोभौ कुरुतो यश्चैतदेवं वेद यश्च न वेद । नाना तु विद्या चाविद्या च यदेव-विद्यया करोति श्रद्धयोपनिषदा तदेव वीर्यवत्तरं भवतीति खल्वेतस्याक्षरस्योपव्याख्यानम् भवति ॥ १० ॥

(2). रसोऽहमप्सु कौन्तेय प्रभास्मि शशिसूर्ययोः । प्रणवः सर्ववेदेषु शब्दः खे पौरुषं नृषु ॥ *Gita*—VII. 7.

(3). यदक्षरं वेदविदो वदन्ति विशन्ति यद् यतयो वीतरागाः । यदिच्छन्तो ब्रह्मचर्यं चरन्ति तत्ते पदं संग्रहेण प्रवक्ष्ये ॥ सर्वद्वाराणि संयम्य मनो हृदि निरुध्य च । मूर्ध्न्याधायात्मनः प्राणमास्थितो योगधारणाम् । ओमित्येकाक्षरं ब्रह्म व्याहरन्मामनुस्मरन् । यः प्रयाति त्यजन् देहं स याति परमां गतिम् ॥ *Gita*—III. 11 to 13.

Iswara (4) sets forth that the Pra*n*ava signifies *Is*wara and that the yogi should repeat the syllable and meditate on the thing signified by it (*viz. Is*wara), and that in this way all the hindrances to the purification and concentration of the mind, such as disease, doubt, desire, idleness &c., can be entirely got rid of and the individual soul realised (5).

From the Manusamhit*a*:—

"A Br*a*hm*ana* should always pronounce the Pra*n*ava both at the beginning and at the end (of a lesson from the Veda). For unless it precede, (his learning) will slip away from him and if omitted at the end, it will fade away (*i.e.*, will not be long retained). Seated on (blades of the kusa grass) with their points towards the east and being purified by the Pavitras (*i.e.*, the blades of kusa in both his hands) and also sanctified by three Pr*an*y*a*mas (*i.e.*, a sort of regulation of the breath) he becomes worthy to pronounce the syllable Om. Praj*a*pati (*i.e.*, Brahm*a*, the creator and lord of all creatures) milked out (*i.e.*, extracted as being the essence) from the three Vedas, the three letters अ, उ and म् and also the three words (Vyahritis) Bhu*h*, Bhuba*h* and Swa*h*. From the three Vedas also, Pr*a*j*a*pati, dwelling in the highest heaven, milked out, one foot from each of that *Rik* verse, entitled S*a*vitri, beginning with the word तत्. The Br*a*hm*a*na learned in the Veda who recites both morning and evening that syllable (Om) and this S*a*vitri preceded by the three Vy*a*h*r*itis, gains the sanctity which (a recitation of) the Vedas confers. A twiceborn man who recites these three a thousand times daily outside (the village, *i.e.*, on the banks of a river or in the forest) in a month gets released even from very great sins, just as a snake gets rid of its slough. The Br*a*hma*n*a, the Kshattriya and the Vaisya who neglect this R*i*k verse and also the performance in due season of their own rites are blamed among the virtuous. The three imperishable Mah*a*vy*a*hritis preceded by the syllable Om and the three-footed S*a*vitri are to be known as the mouth (*i.e.*, the beginning) of the Veda or as the way leading to a realisation of the Brahman. He who casting off idleness recites this (verse) daily for three years approaches the supreme Brahman becoming as free of movement as the air, and assuming an (all-pervading) form like the ether. The monosyllable Om is the supreme Brahman, and the three Pr*a*n*a*y*a*mas are the best form of devotional austerity;

(4). ईश्वरप्रणिधानाद्वा । P*a*tanjala Darsanam—S*a*m*a*dhip*a*da 23.

(5). तस्य वाचकः प्रणवः । तज्जपस्तदर्थभावनम् । ततः प्रत्यक्चेतनाधिगमोऽप्यन्तरायाभावश्च । P*a*tanjala Darsanam—Sam*a*dhip*a*da—27 28, 29.

nothing surpasses the Savitri; truthfulness is regarded as better than silence. All rites such as oblations to fire and other sacrifices get exhausted, (*i.e.*, the result accruing from them is temporary and confers but temporary bliss on the performers), but the syllable Om is imperishable since it is Brahman, the Lord of all beings." (6).

ब्राह्मणः प्रणवं कुर्य्यात् आदावन्ते च सर्व्वदा ।
स्रवत्यनोङ्कृतं पूर्व्वं परस्ताच्च विशीर्य्यति ॥
प्राक्कूलान् पर्य्युपासीनः पवित्रैश्चैव पावितः ।
प्राणायामैस्त्रिभिः पूतस्तत ओङ्कारमर्हति ॥
अकारञ्चाप्युकारञ्च मकारञ्च प्रजापतिः ।
वेदत्रयान्निरदुहद्भूर्भुवः स्वरितीति च ॥
त्रिभ्य एव तु वेदेभ्यः पादं पादमदूदुहत् ।
तदित्यृचोऽस्याः सावित्र्याः परमेष्ठी प्रजापतिः ॥
एतदक्षरमेताञ्च जपन् व्याहृतिपूर्व्विकाम् ।
सन्ध्ययोर्वेदविद्विप्रो वेदपुण्येन युज्यते ॥
सहस्रकृत्वस्त्वभ्यस्य बहिरेतत्त्रिकं द्विजः ।
महतोऽप्येनसो मासात्त्वचेवाहिर्विमुच्यते ॥
एतयर्चा विसंयुक्तः काले च क्रियया स्वया ।
ब्रह्मक्षत्रियविड्योनिर्गर्हणां याति साधुषु ॥
ओङ्कारपूर्व्विकास्तिस्रो महाव्याहृतयोऽव्ययाः ।
त्रिपदा चैव सावित्री विज्ञेयं ब्रह्मणो मुखम् ॥
योऽधीतेऽहन्यहन्येतां त्रीणि वर्षाण्यतन्द्रितः ।
स ब्रह्म परमभ्येति वायुभूतः खमूर्त्तिमान् ॥
एकाक्षरं परं ब्रह्म प्राणायामाः परं तपः ।
सावित्र्यास्तु परं नास्ति मौनात् सत्यं विशिष्यते ॥
क्षरन्ति सर्व्वा वैदिक्यो जुहोतियजतिक्रियाः ।
अक्षरन्त्वक्षरं ज्ञेयं ब्रह्म चैव प्रजापतिः ॥

Manusamhita—II. 74 to 84.

PARANJPYE AND KEITH: NOTES FROM CAMBRIDGE.

We offer our heartiest congratulations to Mr. R. P. Paranjpye, B.A., upon his election to a Fellowship at St. John's College, Cambridge. He distinguished himself, as our readers must be aware, by coming out as Senior Wrangler in 1899 and subsequently won the highest mathematical distinction in the Second Part of the Mathematical

Tripos last year, having been placed in Division I, Class I. But his mathematical talents although of the highest kind are as nothing compared to the nobility of his character, the greatness of his soul. A man who can fling away the highest prospects of life—judged by the all-important commercial standard,—and consent, of complete free choice, to devote the best energies and the highest talents which are his, to the cause of his native country—to the training of youths of his fatherland along lines of high intellectual work, and on a mere subsistence allowance of rupees seventy per month is no ordinarily mortal, but one who judged by any standard, stands supremely high. A friend writing to us from Cambridge under date Nov. 1, 1901, says of him :—" Paranjpye came back to Cambridge about four weeks ago, after having been eight months in France (Paris) and Germany (Gettingen). He is a very nice agreeable man, apart from his studies I mean; and he is so unassuming. He is a candidate for a Fellowship in John's; the election results will be out in a week. He leaves for India by the third week of this month; and goes back to his old college in Poona. When I suggested that he should stay in Cambridge another year if he did not get a Fellowship this time (for he is sure to be elected if he only stays here and does his work) he replied that it was no good postponing one's life-work (meaning of course the work of teaching in Poona); here is grand man, is n't he?"

And again writing to us a week later (Nov. 8), our correspondent says:—" You will be glad to know, and all Indians will rejoice that Paranjpye has been elected to a Fellowship in St. John's College. It is a great honour to him and all sympathetic Indians will share the honour with him. For, to be elected a Fellow in Cambridge is a far higher honour than any examinations can give. The Fellowship which is a stipend of about three or four hundred pounds a year (I am not sure about the amount) will continue for a term of seven years, at the end of which he may or may not be re-elected for another term of seven years. In any case, the Fellowship will free Paranjpye from all pecuniary difficulties for at least seven years, and he will have full leisure and opportunities for pursuing his favourite studies. He is leaving England in about two weeks, and is going back to his old college in Poona."

Mr. R. C. Keith, whose name along with Paranjpye's heads this note, is a young man from Oxford who came out first in the recent Indian Civil Service Examination (1901) beating all past records as regards the number of marks obtained in that examination. He got over 5000 marks, an unprecedentedly high score and we thought fit to make some enquiries about him. Here is the informa-

tion from our correspondent in England about Mr. Keith. "That Keith is a prodigy, there is little doubt. He was a 'Varsity classical scholar and Boden Sanskrit Scholar in Oxford, and got the highest honours in classics and the Moral Sciences; offered no less than fifteen subjects for the Indian Civil Service and got very high marks in every one."

The Indian Civil Service ought to be proud of the accession of so distinguished a scholar to their ranks. Those who have been watching like ourselves the course of events connected with the I. C. S. Examination conducted under the *new* Regulations, (in force since the year, 1892) are alone capable of fully appreciating the significance of such extraordinary and unprecedentedly high score as that of over 5000 marks at an examination whose admitted standard is in some respects higher than that of the English Universities themselves.

EDITOR.

DYSPEPSIA IN CALCUTTA.

Of the thousand and one complaints that are known to affect the health of the inhabitants of this city, Dyspepsia or Indigestion is given the foremost place by unanimous consent. Indeed, step by step, it has become as much a fashionable disease among the citizens of Calcutta, as Diabetes is, more or less, among the corpulent zemindars of Bengal. And the result is disastrous.

Etymologically, as well as pathologically, Dyspepsia or Indigestion means difficulty of digestive actions which arises from various conditions of morbid anatomy. Each different condition is said to give rise to a distinct variety of the disease; so that we see, there are many different kinds of it, but all of them are known to bring on the same final consequences. Frequently, many varieties are found combined in the same individual, and in those cases the consequences are much hastened. Of all the results, the first which we notice is a certain disinclination for food or rather a fear of taking the normal quantity of food, which gradually habituates the patient to taking less and less quantity of food than the ordinary diet of an individual of his age. Of this reduced quantity, again, only a fraction helps to nourish his tissues, on account of the damaged condition of his digestive apparatus. In this way, the nutrition of his body materially suffers which makes him less and less able to resist the attacks of more powerful diseases. It is true, Dyspepsia itself has never been known to cause a fatal termination. But it does more than this. It sucks out our very life,

drop by drop, and makes its possessor the most miserable person on earth, who many a time invites death as a reliever.

Yet all these are new things! Such a universal dominance of this disease did certainly not exist before, as we learn from the experiences of living old men—the last survivors of the grand old times. Our fathers and grandfathers are said to have been excellent eaters, who enjoyed excellent healths, and have bequeathed to us excellent examples of longevity. Even now examples of such longevity are frequently met with in rural life. Therefore, it is evident, that some new and injurious agencies must have been in operation in this city of Calcutta, and these must have been actively distributing their baneful influences on all sides. What those agencies exactly are, we cannot pretend to say for certain: but the following suggest themselves to our mind as the most possible causes of the rapid propagation of Dyspepsia.

(1) The first thing that attracts our attention is the adulterated condition of almost every article of food in the native dietary. Such adulterations as we find in Calcutta are certainly rare with our fortunate village brothers who are supplied with mostly genuine things. Who has not seen the milkman here pour vessel-fuls of water within his milkpot in broad daylight in the public streets? Ghee, one of the principal foods, is seldom to be obtained pure. It is aways mixed up with various noxious vegetable oils and animal-fats which sell cheaper than ghee. Similarly mustard oil and flour are always mixed up with substances physically similiar to them, but which are very detrimental to healthy digestion. All these and many things else are the painful experiences of any one who has resided for only a week in the city.

(2) The more and more extensive use of coal-fire in the art of cookery is the next most injurious factor. On account of the greater heat evolved by coal, we cannot keep the cooking vessel, sufficiently long on the fire, and in this short time some portions of the article put in the vessel are burnt too much, while others are still in a comparatively raw state. Thus, our dishes contain foods in different stages of preparation which, when taken, injure the digestive apparatus to a great extent. In the villages, the abundant vegetation on all sides provide ample fuel for cooking purposes, and thus the favoured villagers are spared the necessity of coke for fuel.

A. DYSPEPTIC.

[*To be continued.*]

Uttarpara
Jaikrishna Public Library.

THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः ।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

WHOLE No. LIV. | CALCUTTA, JANUARY, 1902. | No. 6. VOL. V.

THE PHILOSOPHY OF THE GODS.

The Philosophy of the Gods (Devas) as distinguished from *Is*vara, is one of the corner-stones of Hinduism and have, therefore, to be mastered by everyone who is desirous of gaining an insight into the Hindu religion. It is a subject which is widely misunderstood and has been so, ever since the East has come into close relations with the West since the foundation of the English Dominion in India.

The crude monotheism of the early Protestant missionaries saw in it nothing but a debased polythei m, at once in their judgment superstitious and insulting to the one true God. Then came Raja Rammohan Roy who, while accepting the authority of the Vedas and the Vedanta, looked upon the Vedic Gods as 'allegorical representations of the attributes of the Supreme Being.' According to him, 'the Veda having, in the first instance, personified, all the powers and attributes of the Deity and also the celestial bodies and natural elements, does, in conformity with this idea of personification, treat of them in the subsequent passages, as if they were real beings, ascribing to them birth, animation, senses and accidents as well as liability to annihilation.' To the question that the Devas while being the attributes of God, still existed as distinct entities, as separate created existence the Raja's reply was categorical. "In case these attributes should be supposed to be separate existences it must necessarily follow that they must be either eternal or non-eternal. The former case strikes immediately at the root of all the doctrines relative to the unity of the Supreme Being contained in the Vedanta. By the latter sentiment we are at once led into the belief that the nature of God is susceptible of change and consequently that He is not eternal, which makes no inconsiderable step towards Atheism itself." Judged by this logic, the separate existence of all created life, including man, must either make towards atheism or transgress the law of Vedic Unity. The truth, however, is, which Raja Rammohan seemed to

have missed by mistaking phenomenal *separateness* of Gods for absolute separateness, that so far as the inner essence the true highest self (the Pratyag Atma) of the Devas is concerned, the Devas are the Bibhutis of Isvara. Viewed from this standpoint, everything in the Universe, including man, is the Bibhuti of the Lord, Who is, verily, One without a second. But to say that the Devas are only the attributes of God, is as we have shown, only a half-truth.

After Raja Rammohun Roy came Swami Dayananda, the founder of the "Arya Samaj." He was a firm believer in the Vedas, but seems to have missed the Philosophy of the Gods coutaines therein. Being a rigid monotheist, he could not tolerate a plurality of Gods and being faced with the Vedic Devas—Indra, Varuna, Agni, Soma, &c., he juggled out of the difficulty by interpreting all these names to mean Isvara in His various aspects. To accomplish this feat he had recourse to a forced and far-fetched system of Etymology—all his own. EKAM SAT BIPRAH BAHUDHA BADANTI—there is but One Existence, sages call it variously. The Vedic Gods, therefore, thought this great man, were merely so many forms of speech to indicate the One Reality. The Devas, thus, have no separate existence but are simply names to connote the Isvara. To support this view, Swami Dayananda had to deny the authority of a large part of the Hindu Scriptures, namely, the Smritis and the Puranas. But it may be proved by reference to the Vedas and the Upanishads, on which the Swami took his stand, that not only are the Devas dintinct *created* entities but that they are 'Bigrahabanta' or possessed of forms. It is only necessary to refer to the second part of the 'Kena-Upanishada' where it is related that Brahma (Isvara) having given victory to the Devas, they became inflated with a false pride. Therefore, to humble them, Brahma appeared before them, as a strange being and laid before them a blade of grass which the mightiest of the gods, Agni, Vayu and Indra could not move. Thereafter, Uma, the embodiment of Divine Wisdom, appeared before them and conveyed to them the lesson that none else but the Isvara was the source of all power, even the power of the gods, in this Universe. Again, the 'Koushitaki-Upanishad, in the famous discourse between Balaka and Ajatasatra, expressly draws a distinction between Isvara and the Devas, regarding the latter as separate created entities.

'यो वै वालाक एतेषां पुरुषाणां कर्त्ता
यस्य वै तत्कर्म्म स वै वेदितव्यः ।'

"He verily should be known who is, O Balaka, the creator of these beings (Devas), whose verily they be the creation." Likewise, the Vedic Hymns contain numerous passages in which the Murtis (physical features and characteristics) of the Devas are referred to. In the face of such explicit declarations as these, one does not feel much hesitation in rejecting the assumptions of Swami Dayananda.

We have next to notice the theory of the Orientalists headed by Professor Max-Muller. In his view, 'mythology is the disease of language' and the Vedas are the babblings of child humanity. The Vedic Aryan personified the powers of nature manifesting in physical and atmospheric phenomena. "He gives names to all the powers of Nature and after he has called the fire—Agni, the sun-light Indra, the storms—Maruts, and the dawn—Ushas, they all seemed to grow naturally into beings like himself, nay, greater than himself. He invokes them, he praises them, he worships them." Not satisfied with the current name of Polytheism, Professor Max-Muller has coined a new term "Kathenotheism" or "Henotheism" to connote his view of the Vedic theogony. "Deities are invoked by different names, some clear and intelligible such as Agni—fire, Surya—the sun; others, such as Varuna, Mitra, Indra which have become proper names. But whenever one of these individual gods is invoked, they are not conceived as limited by the powers of others as superior or inferior in rank; each god is to the mind of the supplicant as good as all gods. * * This surely is not what is commonly understood by polytheism; yet it will be equally wrong to call it monotheism. If we must have a name for it, I should call it kathenotheism."

This theory is still in possession of the field. Mr. R. C. Dutt, the historian of Ancient India, has accepted it without reserve, and the late Babu Bankimchandra Chatterji endorsed it, with but slight modifications, in his studies of the Veda. Still, no theory which is founded on the solid basis of truth can stand and this theory of the learned professor is, as we would show, not being based on truth is bound to go the way of its predecessors.

What, then, are the Devas, the Gods of the Hindu Scriptures? The Devas are not the same Isvara as is generally supposed by those who characterise Hinduism as being polytheistic. Neither are they mere empty abstractions, personifications, mere figures of speech. Nor are they mere attributes of the Supreme Deity. They are separate created entities, just like other *created i.e.*, phenominal existences; only they are the Intelligences belonging to the Svar Loka or the Spiritual Plane. Nature never works *per saltum*; there is no breach of continuity in her domain. Thus, there is a linked chain, connecting the mineral, the vegetable and the animal kingdoms. As Science is daily finding out, there are no sudden gaps in the continuity of the ever-evolving Life. There are no rigid or sharp lines of demarcation between these great groups. It is, as it were, a continuous line. Thus, between the mineral and the vegetable, Science is discovering connecting links or forms of life partaking of the nature of both. So also in the case of animals. How could there be such an immense and insuperable gap between man and the Highest Life? Why should there be an utter void of being between the highest life of

supreme Isvara and that of the puny, grovelling man? Must man, weak, and imperfect as he is, be the goal of evolution? Further, the absence of a conception of devas in any form of religious thought has only the effect of making the God-idea anthropomorphic and degraded. In the result, God becomes more a man than a God, clothed as He must necessarily be, with human ideas and human limitations. The unscientific conception of a God out of relation with the universe, yet sharing with man some of the lowest of human failings, has injured religion more than any amount of scientific criticism.

If we look around us, if we look at the great revealed religions we find every one of them admitting the existence of intermediate, created beings between man and God, beings or intelligences that supply the missing links of the divine order of evolution. The Greek and Roman races had their gods, Zeus, Jupiter, &c. The Goths had their Thor and Odin. The old Persian Religion acknowledged Feristha, Amasaspanth and Ahurs. The Hindus have their Devas or Suras, Prajapatis. The Buddhists have their Dhyan Chohans and the like; and Christianity also speaks of the hierarchies of Angels and Archangels.

It would be too much to say that the universal belief in these intermediate beings was due to a common ignorance. The very universality of the idea is a proof of its truth. We would continue the subject in another issue and show that the Gods or Devas cannot be so summarily and too lightly dismissed as they occupy a very important plea in creation and perform some very important functions.

HIRENDRANATH DUTT, M.A., B.L.,
Solicitor, Hight Court.

HOW HINDU ORTHODOXY HAS PREVENTED FROM DYING AND MAY YET REVIVE INDIAN ARTS AND INDUSTRIES.

To promote the arts and industries of India, we have at the outset to consider how they have hitherto been preserved, why in fact they have not altogether been extinguished. Let us, therefore, proceed to mention some of the different arts and industries of our country, and to acquaint ourselves with the class of men to whom their continued existence is due.

The country sugar and *saindhab lavan* (salt) industries of our country depend for their support entirely on the widows and orthodox Hindus of India, who would not touch articles which are refined by the bones of animals or are machine-made; for in the process of preparation, these are touched by people the magnetism of whose body is not sufficiently pure. Again, the stone, earthen, brass, copper and other metallic wares, of the country would have long given place to porcelain and glass wares, if our ignorant Hindu widows and our orthodox countrymen with their unshaken belief in their superior

importance and purity as laid down by the *Sastras* waged ceaseless war against the introduction of foreign utensils into our homes Again, the use of *Ghoonsees* or *Kandoras* (fine silk ribands encircled round the waist of infants and children) prepared by poor widows of India who would have otherwise no means of earning a living is at the present day confined only to the most orthodox Hindu families. *Galla choories* (lac-bracelets) are patronised only by women who have not been wholly Westernized in their habits. While by the courts of Rajas and Maharajas *of the ancient school* and in the *Guddees* of Mahajans, *unlearned in English*, do hand-made *durrees* and carpets cover the floor. The great *ottar* (आतर) trade of India depends for its customers on men who are mostly opposed to the use of foreign perfumes and scents.

Turning now to another field of Indian Industrial activity we find that the *Cora* and *Tussurs*, the *Garads* and *Baranasees* would have long been extinct but for their use as enjoined by the Hindu *Sastras*, on account of their superior purity or sanctity for purposes of ceremonial worship For the purposes of a Hindu marriage the Hindu is compelled to buy the *Sastra*-prescribed garments. Again, during his daily prayers (*Ahnik*) the Hindu must wear some kind of silken cloth as specially enjoined to be worn on such occasions, no matter how coarse it might be. The sacred thread *Paita*, or the Yajjnopavit (sacrificial thread) spun by the poorer classes of Hindu widows is essential for Upanayan, Brata (ब्रत) and Guru-Purohit Dakshina ceremonies. The conch-shells and *Sankhas* (शाँखा, shell-bracelets) are indispensable for marriage and other sacred rites. The blowing of conches, as we all know, must mark the commencement of every Hindu ceremony, as it is said to be मङ्गलध्वनि. *i. e.*, auspicious or purifying sound; and the same process must be resorted to when lights in a Hindu household are kindled. While the *Sankha* (shell-bracelet) is indispensable for *Devi* or *Sadhaba* worship and is worn by almost two-thirds of the population of married ladies. Again, only for purposes of our Pujas do we see *wax-candles* burnt before the images. While in our drawing rooms, parlours and nautch-ghars are gas and electric lamps lighted to emparadise the night. The mustard oil which gives, when burnt, a wholesome and mild light has been replaced by the noxious kerosine, which gives such light and heat as are not good for our bodies and our eyes specially. Orthodox Hindus observing the Dewalee festival buy mustard and *tili* (sesamum) and other country-made oils to illumine their houses, which both tasteful and economical.

Turning now to another aspect of Hindu social and religious life, the orthodox Hindu has to present carpets, shawls, woollen and silk dress-pieces, *Sarees* and *Dhootees*, all country-made every year, to his friends, near relatives and preceptors. The indigenous Hindu musical instruments of which any nation could well be proud, are now seen only in the Hindu temples,

where they are daily played. While everywhere else, and specially, in the mansions of the Anglicised rich people and the Westernised educated gentlemen pianos, harmoniums and clarionets are preferred. There are a particular class of ascetics and devotees who for purposes of devotional excercise use the *Sitar*, the *Esraj*, *Tamboora* and the *Ektara*, *Khol*, and *Karotal*. The religious ceremonies and the Pujas, as a matter of fact, maintain the sandalwood merchant, the Dhoopa and Dhuna (kinds of incense) manufacturer, the plantain-leaf-seller, the painter, the potter and a number of other artizan-classes. It would thus clearly appear that the prosperity of our indigenous arts and industries has had hitherto the ritual part of the religion of the Rishis for its basis. Who does not see that the Hindu pictures, toys and dolls have been for so long designed after the images of the gods and goddesses of the Hindu Pantheon, the Hindu with his strong devotional instinct preferring to purchase them. But times are changed; for now, to minister to the altered, westernised tastes of English-educated young India, Indian artisans have recourse to Western models, with the sad result that the show-gallery of Krishnagar toy-shops, which ten years since were adorned with the small well-furnished images of Rama-Krishna, Netai-Gour, Siva-Durga and Kali now exhibit *Khansamas*, (Mahomedan-servants) *Baburchees*, (Mahomedan cooks), *Khidmatgars* and *Jharoowallas* (sweepers). Similar has also been the fate of the pictures and paintings of India, which have gradually degenerated to become popular with the present English-educated generation, who are all after Western models. But there are Indian artisans, who are original as designers and are not mere imitators of the West; and these have to depend entirely on the patronage of the orthodox Hindus who are now not so strong a body as formerly.

Turning now to the ancient wonderful structures and edifices of our country, we learn the same lesson of Hindu orthodoxy supporting the Hindu arts and industries. As was well-pointed out by that great and good man, whose name ought to be a house-hold word in India, Sir George Birdwood, at a meeting of the National Indian Association: "Hindu graphic art is in all its phases, in architecture, sculpture and painting, the expression of Hindu religion and its very application of religious significance:" And further, according to the same distinguished authority: "The arts of India are still *living arts* and afford a far more efficacious rallying centre for the revival of the indigenous and traditional culture of the Hindus than their literature." And he accordingly invites all true sons of India to preserve by patronising them, the indigenous arts and industries, and has placed himself at the head of a Society for the Preservation of Indian Arts and Industries.

The same view is insisted on by Mrs. Anne Besant who has been labouring so hard for the revival of the ancient glories of India. Said she at a meeting at Benares,—the extract is long but is worth reproducing

—"In India of to-day we have reached a point lower than ever. We find it impoverished without parallel. Its manufactures are dying out and so also its arts. The products of its manufactories are disappearing. The manufactures of silks, muslins, carpets which formed the wealth of the nation and enabled it very largely to draw to itself what it wanted has almost disappeared. In the middle ages, there was an immense trade between Europe and India, and that trade was composed of all those valuable articles which were sold for their weight in gold. Despite the immese trade, India had a surplus of wealth and that was up to the 18th century. Export brought enormous prices and the wealth of India was spoken of as that of a fabulous country. Look at the time when Hastings and Clive came out and just read over the record in which they describe the riches of India. But if you look to India of to-day you find that its manufactures are dying out and the people have become poorer. *This is because the Western ideal has become the ideal of the people.* They want an immense variety of goods. They buy things which last for a short time. As the country gets flooded with these things which are cheap, the native article dies out because it is dearer. They do not desire to have a beautiful object which would last their whole lifetime and may be handed to their children. They have acquired a vicious taste, a *taste for articles which do not last, although they glitter and are fashionable.* The true artistic taste—the taste for beautiful, dignified and permanent articles has been fast disappearing. The arts are destroyed by the machine made goods and partly also with the failure of the religious spirit the art loses its life. Look to the religious paintings and pictures of modern India such as are produced by the Art Schools of Calcutta and Poona. They are all vulgar and do not stimulate the religious spirit. But take older products and you will feel yourself divinely touched. But I would defy any one to feel the least devotion with some of the modern pictures. They are based on the French art which simply tries to make pretty forms. But there is nothing in them but graceful human forms. The gods drawn in such a form will never raise devotional souls. This is the kind of work which India now produces. I was struck by it, whereas in the old pictures you feel devotion. That vulgarisation of art which has been carried on in Europe is showing itself in India also. Therefore, the way of reviving India *does not lie in bringing over European methods but in the reviving* and *re-adapting of her own methods. By the revival of the spiritual ideal and making that the object of your life, you will bring about a revival of the conditions of life suitable for national growth.*" In other words, Mrs. Besant asks us to revive a TASTE for indigenous artistic and religious ideals, and with the revival of that TASTE—shall there be a greater demand for indigenous articles, *i.e.*, articles that gratify the indigenous, artistic and religious ideals.

The evil effects of "an unheard of portion of the revenues of the country being spent upon *foreign commodities* was also pointed out by the late Mr.

Robert Knight,--editor of the *Statesman*. Writing so far back as February 1st, 1881, in the *London Statesman*, (now defunct) he said: "An unheard of portion of the revenues of the country was spent upon foreign commodities. A Governor, a Member of Council, Judge, or Collector, does not, as a Native Rajah, or Jaghirdar, or Amildar would do, spend his income on crowds of retainers and hangers on of all kinds, creating a large and constant demand for the common food-grains of the country, and for *ghee*, *goor*, *pan*, betel and so on. The English Judge or other official requires Long Acre carriages, Arabian or Australian horses, French wines, Parisian and London millinery, and the long list of foreign luxuries in which every one in India indulges, from the Viceroy down to the engine-driver. The rich native *unfortunately for his own country*, long since acquired *a taste for these imported luxuries* and *even the every poorest expends what he has*—beyond the mere necessaries of life—*upon English piece-goods and copper, or upon China-silk and silver. This intense demand for foreign goods was unknown before our time. It has sprung up under foreign rule, and has wholly changed the economic conditions* under which the country is now adminstered Let us suppose that a native prince and his nobility, such as the Peshwa Bajee Rao, and his Mahratta Sirdars had suddenly changed their tastes and habits, say at the time of the Treaty of Bassein (1803). Let us suppose the Peshwa to have suddenly dismissed the swarms of Barhmins that hung about his court at Poona; that the great Mahratta Sirdars of the Deccan followed his example; and that the sowars, peons, ghorawallas, and troops of idle servants and retainers to whose maintenance the Mahratta revenues had up to that time been devoted, were suddenly cast adrift upon the Deccan; and that the revenues which had hitherto supported all these dependants in rare comfort —were now devoted by the Prince and his Sirdars to the purchase of every variety of foreign luxury. The *first effect* would be great misery to the classes thus deprived of their accustomed means of living; the misery we have seen so terribly exemplified at Lucknow, in the last twenty-five years. The *second effect* would be that the revenue spent by the Court and its executive, no longer finding its way to the classes thus suddenly made destitute, and through them to the Native Bazaar, and through them to the cultivators that supplied the bazaar, the last or cultivators would no longer have it to return, to the Government as revenue. The money, by the supposition, would have gone out of the country, to pay for the foreign luxuries consumed by the Prince and his noblemen nnder their new style of living."

The above coming from the mouth of so high and competent an authority as the late Robert Knight ought to be conclusive on the point; ought to show that to preserve and encourage Indian arts and industries, and so to help to solve the great poverty problem in India, we ought to grow more *national* in our habits, more orthodox in our *tastes*, so that in course of

time the demand amongst ourselves for Indian goods might grow, to the great material advantage of the country. Hindu orthodoxy has hitherto to some extent preserved the arts and industries of India; and it is because our habits and tastes are getting to be westernised, because our artistic *ideals* and *tastes* and *habits* are getting to be less and less indigenous, because we have been daily ceasing to discover and encourage what is good and noble and refined in our own ideals, that in India the demand for and the encouragement of *hand-made* Indian goods have been growing less and less.

Everybody, excepting ourselves, has been noticing the tremendously evil effects of the existing order of things. Sir George Birdwood, Mrs. Besant and the late Robert Knight are only conspicuous examples of men who have warned us against our apathy and light-headedness in the matter. The following opinion of the Parsee merchant, S. J. Tellery of the firm of Tellery and Co., Bombay, seems to be conclusive on the point: "The pressing question naturally is, since all the attempts of the Government of India to revive the Industrial Arts of India have been so far failures, what could or should be done to make them a success? I know that this question of reviving the industries have been very little thought of by the people of the country I have heard much about technical schools, schools of art and other schools which would train artizans. I wish to explain, (without entering into the merits of such schools) what excellent artizans we possess ready at hand, without training new ones in India. The arts, here, are hereditarily taught and maintained by the machinery of caste which is more powerful than any that Government could create. The indurstrials are here, *thanks to this caste system*, trained without the aid of schools free of charge to Government; but under existing circumstances, these skilled artizans, hundreds of thousands of them, are without an outlet for their wares and are starving by hundreds and thousands. It is not institutions that train more artizans that India needs, but one which will find markets for the wares of the vast numbers that are starving. In India, wealth and treasure in the shape of trained labour is lying idle and there millions of skilled labourers are starving, instead of being prosperous. Although machine-made goods in all countries have greatly affected the hand-made goods, yet it cannot be said that hand-made articles have been ousted entirely out of the markets of the world. There has always been a demand for the last, although, for a time, after the invention of machinery, a craze for machine-made articles sprang up, as machinery is able to produce cheaper, *although less artistic and durable goods*, and the masses were very easily induced to adopt them. There has, however, been a great reaction during the last twenty or thirty years. Educated people all over the world soon found out that machine-made wares lack originality, and durability, that they are vulgar and do not appeal to one's artistic feelings, and any one with the least artistic training would always avoid

buying machine-made things, if hand-made ones could be had within his means. Rich people, with no artistic feelings at all, naturally imitate others of taste with whom they come in contact and this has itself caused quite a revolution and *created a demand* for artistic, hand-made articles. *Every other country except India has profited by this.* Hand-made art-wares in England, Germany, France, Italy, Austria, Hungary, Russia, Holland, Spain and Japan have not only been maintained but greatly developed, and even new ones created and made remunerative, * * * There are hundreds and thousands of persons employed on the Continent in various hand-made industries of the identical articles *which the Indian village and town-artizans perfected long before European cauntries dreamt of manufacturing them. Many of those now flourishing industries have been built upon the ruins of those of India.* Who is responsible for this? The usual cry is that it is the Government. But I would say that the people themselves are principally culpable. Governments can only assist commerce and industry; they cannot launch into business on their own account. As matters stand even now, India possesses such *perfect* artizans in a great many different lines, that nothing else but the *system of caste* would have preserved them.

I think I have now been able to prove that Hindu orthodoxy has naturally an economic aspect; and that if such orthodoxy helps us in preserving for us and encouraging the indigenous arts and industries of India, it requires to be studied and fostered by Indians in the interests of economic national self-preservation. For it cannot be that a true Western education should lead us to reject our own artistic, dignified and durable hand-made wares for the inartistic, ugly and less lasting machine-made articles. It is only because we have not been able to learn the true lessons of Western life, the true strength of Western character, Englishman's public spirit, his spirit of self-reliance, his spirit of self-sacrifice in the pursuit of national ideals of greatness, that we have failed to learn, appreciate and encourage all that is good, and noble even in our own economic life, and are pensioners on other men's doles. Our tastes require to be trained on national, indigenous models, and then, there would arise a growing demand for indigenous articles; and instead of hankering after things of foreign make, we should be able to enjoy the benefits of durable, artistic and dignified articles turned out by an ancient race of artizans who, under all adverse circumstances, *through the machinery of the trade-castes*, have preserved for us the industrial art in such perfection, but whose patient sacrifice and toil, and whose calm, resigned struggle with adverse circumstances we have failed to appreciate in our short-sightedness and our overweening conceit of being the first possessors of the New Learning.

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WHAT BHAKTI IS AND WHAT IT IS NOT: FROM THE LIPS OF A SAINT.

It is related in one of the religious books of the Mahomedans that the Prophet, Moses, one day addressed God thus :—"O Lord: It is Thy devotees that enjoy and even rob all Thou hast. Do Thou take *me* up as one of Thy devotees." Upon this, God said: "I have already appointed thee as a prophet—this alone is sufficient for thee. I have given every man in the world his task the proper performance of which alone would make him out as one of My devotees. But to be a devotee superior to a devotee of this character is, indeed very difficult. If thou wilt see a devotee of this superior order, do thou wait for a while." Then, God further said :—"Moses, I want a quarter seer of flesh. Do me this work—you will proclaim to the world that its Supreme Lord wants to possess Himself of a quarter seer of flesh and that any one in this wide world who is lovingly devoted to the Almighty, should take this opportunity of sacrificing a quarter seer of flesh from his thigh." These words first of all put Moses to the test; for he was found wanting in not being able, like a sincere devotee of the Lord to fulfil his Lord's wish with the offer of his own flesh. When Moses went on proclaiming God's word from place to place, all suspected Moses to have gone mad. When he was thus crying out his need for flesh in God's name, an old man in tattered blanket came out and exclaimed in deep, solemn tones: "Ah! who is it that has made me hear the Lord's name—who, indeed, talks of my Beloved? What! is it you, Moses? You are crying out the Name of my Beloved?—ah! you are blessed. What! Moses! has indeed my Beloved asked for flesh? This, indeed, is a very happy news! Do thou fetch a knife as soon as possible lest the mind change its mood." Moses brought out the weapon and the old man laid out his thigh. Moses began to cut off the flesh, but the flesh of the whole thigh did not come up to the required amount of a quarter seer. The old man then gave up one limb after another; still the quarter seer was wanting. Whereupon, the Lord's loved devotee said: "Moses, I *renounce the whole of my body*; do thou accept all the flesh it contains." At this moment the Almighty Ruler manifested himself in visible form and addressed Moses thus:—"Lo thou hast proclaimed to the whole world that I have wanted flesh but hast not found anyone else ready to sacrifice his body for it. But this man has offered up his whole body for Me! Now, Moses, I put it to you—what possible sacrifice is there for me to make, wherewith I should be able to repay the debt I owe to one who could thus cut up his own body

for me, who could thus sacrifice all he has, offer up everything for Me. Now it is for this reason that I offer up the whole of Mine Own self to him."

We pray to God and we say with mere words of mouth that we love Him. In reality however we do not love Him as we *say* we do. For he who has love for the Great Almighty has in the first place lost his selfish nature. For should I really think of Him as mine own Beloved, can I have my mind engrossed in things other than He? When I see how wofully I am ministering to the gratifications of the senses, how may I then be able to say that I *love* Him? If I do really love Him, then should I also love what *He* loves. Is it everything to be able to say mere *words* about Bhakti (love of God)? Dancing, shedding tears, jumping, get intoxicated with feelings of devotion: do thou call this alone Bhakti, love of God? For what really is Bhakti?—it is simply an all-engrossing love. It means the consecration of both body and mind to Him. Rupa-Gosvami has said that a single drop of the sentiment of Bhakti in the heart will presently show itself in the signs indicated in the following:—

"क्षान्तिरव्यर्थकालत्वं विरक्ति मानशून्यता। आशाबन्धसमुत्कण्ठा नाम-गाने सदा रुचिः॥ आसक्ति स्तद्गुणाख्याने प्रीतिस्तद्वसतिस्थले। इत्यादयोऽनुभावा स्युः जातभावाङ्कुरे जने।

[*Translation:* When the true भाव or the essential sentiment of Bhakti strikes root in the soil of a man's heart, even then, do the following (corresponding) symptoms manifest themselves in successive order in him:—all-tolerant forbearance, not allowing any time to be lost, non-attachment, making nothing of himself, an all-expectant, anxious attitude towards the Lord, a taste in all times for the enjoyment of the Lord's Name, fondness of singing the Lord's glories and attachment for wherever the Lord abideth.]

In the *first* place, when this sentiment takes its mere root in the soil of the human heart, it will forthwith generate an all-tolerant forbearance. If I am really alive to the thought that God is my Lord, my Beloved Whose this wide world of animate and inanimate objects is, this whole human race of men and women, then surely,, if any one should trouble me, or thwart me, or insult me, should I be able to say to him:—"you may do your whole will on me, for ye are, indeed, my Beloved's own—how may I reproach ye?—Ye may treat me in any way ye like, thwart me, beat me, you may do your will on me to the uttermost."

In the *second* place, such a one does not let time pass away uselessly. He cannot do any work which is not done in the name of

his Lord, or by way of His service and worship. He does not even breathe a single useless breath—he is always usefully engaged, either in the company of saints, or in the study of the scriptures, or in some kind of service of his Lord.

In the *third* place, his life becomes one round of non-attachment for the things of the world. He always thinks within himself thus: "Everything but my Lord is of no worth; I know nothing but Him, everything else is but his creation." To go out into wilderness, to put on orchred garments, to besmear the body with ashes, to wear only कौपिन is not of the essence of asceticism—on the contrary, they have been made light of as *by themselves* of little worth, as false asceticism, in fact. For what is true asceticism?—It is the want of attachment, of attachment for any object other than the Almighty Lord.

Fourthly, such life shows an utter insensibility to what is due to itself from others. He who is always looking within himself considers, himself lighter than the dust, as it were. It is he who is not so looking that magnifies himself. He who finds everything lost in the Infinite looks upon every single thing as beautiful and attaches value to the same. He sees, indeed, everything but himself; and it is thus that thoughts about himself find entrance into his mind.

Fifthly, his is an anxiety bound to the one hope of obtaining his Lord. "Here is, my Beloved! here is my Lord! *I* have no cause of fear," and so he is perfectly at ease within himself, He does not approach his Lord for anything concerning himself, nor pray to Him thus, "O Lord! Do thou give me my daily bread, do thou supply me with bodily garments &c." Like unto the tree standing unmoved amid the inclemencies of weather, amid storm, rain and scorching heat, he stands unmoved amid troubles and dangers. "He is all contentment that realises the supreme," such also have the Rishis said. The bliss he enjoys knows no bounds; yet is there in his soul a perpetual hankering after the Lord of his heart.

Sixthly,—such devotee delights in always singing the Name of the Almighty; but that he recites the Lord's name is not because he has to do it, but because he delights in doing it. He does not care to see whether his voice is in proper tune, or whether there is the proper music from the instruments; but his whole attention is concentrated on the holy Name. He is charmed whenever hears the Name uttered although it be by the street-porter and he cries out, 'ah! who utters my Lord's name?'

Seventhly, he is perpetually given up to proclaiming the glory of the Supreme Lord. For him the hills and mountains, the rivers and oceans, every tree and creeper, the birds of the air and the beasts of the earth, the moon and the stars on the sky above—in a word, all objects animate and inanimate—and the host of the greater Yog*is* and Munis, all proclaim eternally the glory of the Supreme Lord. The more he speaks of the infinite attributes of the Lord, the more he feels impelled to relate them at greater lengths, and so he does not ever reach the limit of his desire in describing the Lord's glories.

Eighthly, he loves, as he loves his own life, the whole universe, as being the place wherein the Supreme Lord abideth. I have seen with my own eyes one of the devotees of the Supreme Lord while a man was severing the branch of a tree, uttering a cry of anguish as if one of his own limbs was being severed.

Now, when a man reaches this state of the Soul could he ever retain a single trace of sin? The Rishis have said:—

नाविरतो दुश्चरितान् नाशान्तो नासमाहितः ।
नाशान्तो मानसोवापि प्रज्ञानेनैनमाप्नुयात् ॥

If the true love of God springeth in the heart, then the mind will of itself attain peace. If while I have always the name of God on my lips, if while I dance and frisk about in ecstacy, I still look at woman with the evil eye (of lust), tell lies and work for selfish ends; then, indeed, have I not yet been able to know Him full well and my love is for sin. One touch of true love driveth away all sin. That great saint, San*a*tana Gosv*a*mi has also said that sin cannot remain where true love springeth. When the Lord (*Sri*-Chaitanya) initiated Jagai and Madhai in the Lord's Name, they instantly felt the weight of sin and a deep anguish affected their very soul. They then appealed to *Sri*-Chaitanya thus: "alas the suffering of sin is within us perpetually and shows no signs of abating." At this *Sri*-Chaitanya said to them: 'Wend thy way to the ferry-ghat and there take the dust from the feet of all who come to cross the river. By this means alone should you be rid of the pain." So long as we do not feel the pangs of sin, we only worship our own senses and in that state no worship of God is possible. So long as we do not find God as a living, visible Presence, so long the living tree of religion groweth not. Religion is not born of the dull, dead, barren words heard by the ear. So long as we are not able to feel the existence of God quite as much as the hand feeleth water, or the fire; so long does the love of God not arise. Is, then, the seeing,—the realisation of God the first, the

preliminary requisite? No, this cannot be, for that cannot take place if the soul is not first purified. But then just as we feel cold on going near the Himalayas without seeing the mountain; just as we feel the sun without seeing it when its rays touch the body, so also may we feel the presence of God.

There is now-a-days going on a good deal of discussion on the question: Is God 'unbodied' or 'embodied." He is 'unbodied' or formless, because He is none of the created. Again, He is embodied inasmuch as He exists. He is also unbodied, but is not on that account a non-entity like an *object* which is formless. He is, indeed, actually visible to the eye, sensible to the touch, audible to the ear, to be smelt of by the nose, to be tasted and to be in body serve! No, it is not a metaphor merely or an idle fancy but a living reality, although it cannot be explained in words—just as the seeing of dreams by the dumb could never be explained in words. God is capable of forms, but this only means that He is not a created object, though He exists and is not a non-entity. His devotees call Him 'सच्चिदानन्दविग्रह.' Now what is meant by सत्, चित्, and आनन्द is above all description. Bilvamangal was a great poet who in his poetry profusely sang of God so long as he did not see Him. When the Supreme Lord at last appeared before him and said 'Bilvamangal, do thou now give an account of Me,' Bilvamangul could only reply, 'Lord, no longer am I able to describe Thy Glory!'

So long as I do not see Him, so long I describe Him in the profuse strains of poetry, speak much about Him; but the moment I see Him, the tongue fails and the words cease lest they should express what is not. He is above all description by language, or by metaphor.

Just as the tree groweth from the seed, just as, in other words, the seed containeth within itself all the elements of the tree—and I learn that an instrument has been of late invented which makes the seed show within itself the whole tree—so likewise all the elements of the tree of religion are contained within the seed of the soul. *Ex nihil nihilo fit*,—out of nothing comes nothing; it is only what the soul contains that is afterwards developed. There is wisdom (ज्ञान), —there is reverence (श्रद्धा) latent within the soul, and hence their manifestation. When these develop along wrong lines, then alone do they become our रिपु's, our enemies. For when we work mischief through our hands or eyes, do our hands and eyes become our real enemies. If, on the other hand, we do good with their help, then they turn our friends. The gratification of self is Kama (काम), but the

service of God through self is Prema (प्रेम). When Bhakti or the love of God springeth within the heart, then may we understand that this काम or self-gratification is not our enemy but our real friend. Consider ye the passion of anger: when this feeling expresses itself in the form of moral force, then is it to us a benevolent friend; when anyone does wrong, and we do not prevent it by means of it the sense of manhood completely disappears. Greediness, when it is directed itself to God acts like a true friend; when it is turned to other objects it becomes our true enemy. मोह *i.e.*, blind or ignorant attachment, when it is in respect of God (*i.e.*, when such blind attachment, makes us strong in our belief in God) is, indeed, a very good friend to us; when, it attaches itself to other things it works our destruction. Then, as regards मात्सर्य *i.e.*, jealousy or the feeling pain at some body else's good; as regards that feeling, not to envy others their prosperity but to aim at becoming like them is its proper expression. Whatever is indeed necessary to me,—with *that* I *am* gifted by God.

Just as parental love does not grow in us unless a son is born (and the love we bear to our brother's sons is not parental love strictly speaking, but is simply affection); just as, in fact, a quality or tendency cannot develop without its proper stimulus or corresponding object of gratification; so likewise until we see God, which is the stimulus, so to speak, of Bhakti, no Bhakti could spring up by any means whatsoever—no matter whether we put on ochre garb or besmear our body with ashes or whether we in a spirit of devotion dance. Without Bhakti, sin could never be driven out though we may weep ourselves to death. As a living tree daily changes and grows, even so, if I have attained to the true religious state, I am not to-day what I was yesterday. Sin will find me a place too hot for it. The sixth chapter of the Srimad-Bhagabatam teaches us that all other modes of escaping sin by way of प्रायश्चित्त (expiation) that are extant are like कुञ्जरशौच or the purification of elephants through washing: for just as elephants remain the same after washing as before, so does sin return after the expiation is over. Bhakti is like the Sun whose presence brooks no mist; likewise, the day-spring of Bhakti within the soul driveth away all sin; *with it*, all the qualities above-mentioned, forbearance, etc., will of themselves spring up within the soul. This has been declared by रूपगोस्वामी &c., not by way of inference but as a matter of real experiment or experience. So long as I do not see God, I may love others; but the moment I see Him I cannot do so; although there does spring up a love for all objects on the ground that they are all His.

From my very childhood I have been in a sense ever craving Him. No, not half-sweetmeats but whole ones; that is what I have ever craved; I have only wished to have the beautiful flowers and if possible the moon itself—in all this have I not ever been longing for Him; for He alone is great and beautiful above all things else. If I can but once have Him, Him whom I have been wanting from the days which saw me in my mother's lap, if I can but once have Him,—could I ever help loving Him? Oh Lord! when may that crowning day dawn upon me!

RADHAKUMUD MUKERJEE.

INFANT *versus* DEFERRED MARRIAGE: QUESTION OF LEGISLATIVE REMEDY.—III.

[*Continued from page 154, Vol. V.*]

QUESTION OF MORALITY OR THE BEARING OF EARLY MARRIAGE ON ILLEGITIMACY.

But that which weighed most with the Hindu legislators who ordained infant or rather, early marriage, was probably the desire to guard the youth of both sexes from falling into vice and immorality. This is evident from the way Manu, the great law-giver of the Hindus, laid down the rule for determining the age of marriage. According to Professor Max-Muller, and I agree with him, Manu simply laid down that a girl ought to be married just before she reached puberty, or in other words, as the learned Professor says, when she was marriageable. This marriageable age in this country would be 12 or 13, and according to the Indian Christian Marriage Act, 13 is held as the minimum marriageable age for Native Christian girls. But in carrying out this rule there are some practical difficulties. Like "the Jews who hold it a direct sin against the commandment to 'be fruitful and multiply,' if they are not married in their eighteenth year," the Hindus believe they commit a great sin if they do not get their girls married at the age of puberty, and as they must be married in their own caste, we can easily imagine how difficult it is to find a husband. Parents of the bride have often to spend three, four or five years in the search for a suitable husband, and it is the fear of not finding a husband whenever wanted, that girls below the age of 11 or 12 are married. This, I believe, is the real cause of the girls being sometimes married at the age of 7 or 8, or even earlier.

Now, if what I have stated above was the real object of the Hindu law-givers in ordaining early marriage, then I am bound to

say they have been eminently successful. At an age when youth is most exposed to temptations, every Hindu youngman has his wife and every Hindu young woman her husband, to preserve them from vice and sin. In this respect, the Hindus compare most favourably with other nations amongst whom late marriage is the rule and early marriage the exception. *If we, for instance, take into consideration the statistics of the illegitimate births in those countries where late marriages prevail, we* cannot but concede the truth of this statement. Unfortunately, we have no statistics on this subject for this country; but I make bold to say that an illegitimate birth is a rare thing here. During my whole life, I have not heard of more than two or three cases. But if I am to believe in the statistics published annually in England in the Statesman's Year Book, the percentage of these briths in some places in 1882 went up as high as 15.22, 17.8 and 26.77, *exclusive of the still-born.* In France, the number of the *still-born* is given at 43,747, while the total number of births was 935,566. In Germany the average was 3.8, and the maximum 4.49. Thus, if in countries where powerful moral agencies are at work, the percentage of illegitimacy went up so high, you can well imagine what would have been the state of morality here, where human nature is the same as everywhere else, but where you have not the salutary checks of Christian land! *To show you that illegitimacy has a bearing on early marriage,* I will quote the following passages from the article on "England" published in the Encyclopædia Britannica (*Ninth Edition*).

"The rate of illegitimacy was highest in the agricultural districts, where it increased in recent years, while largely decreasing in the urban districts. The increase was highest in Essex, where it rose to 10 per cent; in Hertfordshire where it rose to 17.3 per cent; and in Rutlandshire where it went as high as 23.5 per cent., so that in the latter pure agricultural country nearly one-fourth of all the births were illegitimate.

"*It seems probable that the decrease of illegitimacy in the urban districts is much influenced by a constantly increasing number of early marriages.* While in the quinquiennial period, 1841-45, the proportion of males under age that married was 4·38 per cent., and of females 13·33 per cent., the marriage rate of minors, undergoing a steady and uninterrupted rise went up in the period 1871-75 to 8·15 for males 22·22 for females. In the ten years from 1846 to 1855, the proportion of males under age who married was 10.64 per cent. and of females under age 33.47, while in the 10 years from 1866 to 1876, the proportional percentage was 17.05 for men, and 47.09 for women."

Consider again in this connexion the shocking revelation recently made by the *Pall Mall Gazette* which made Christian Europe hang down her head with very shame. Could such a state of things have been possible if the victims had been married and had husbands to protect them from a life of sin and shame? I cannot think it could, and I am supported in this inference by the fact that the unfortunate class in this country is almost wholly recruited from the widows and unmarried and not from those that are married.

Now, if marriage was ordained by God, as we read in the Book of Common Prayer it was, "for the procreation of children" and "for a remedy against sin," then I think we must admit that the Hindu system of infant-marriages fulfils this two-fold object at least as effectually as any other system of matrimony.

HINDU CONJUGAL ASSOCIATION; ITS VALUE AS A TRAINING.

But there is a third object which matrimony proposes, which is "mutual society," and Hindu legislators have not been unmindful of it. In this respect, the Hindu and the Scriptural ideal most wonderfully and happily agree. "The Vaidik texts," says Dr. Gurudas Banerjea, "that are recited on the completion of the seventh step by the bride, clearly show that the Hindus, even in those early days, had learned to regard marriage as a true companionship of the purest character, a union of pure hearts, for the cultivation of the best feelings of our nature." Nor is conjugal association limited to temporal purposes alone: religious rites are ordained in the Vedas to be performed by the husband in company with the wife. The Hindu husband is taught to regard his wife as the bone of his bone and flesh of his flesh. Accordingly, he is expressly commanded by Manu to honour her, while she is required to revere him as a god, as Sarah did Abraham calling him lord, or as St. Paul indicated the relation by declaring the husband to be the head of the wife and commanding the wife to submit to him and obey him in everything. Now, the question is—*Does infant-marriage secure this companionship and his relation of subordination?* I think it does. Among the Hindus there is no such thing as instantaneous love. The infant husband and the infant wife *are taught* to love each other; *they go through a regular training, just as we teach little children to love one another.* The husband is told how to treat his wife,—to speak kindly to her, to get for her nice *saris* and costly jewels, and the wife is likewise told to revere her husband, to obey him, to look after his meals, and to do him any little personal service which she can. In this way they grow,

and with their growth, their love and friendship grow too, having for their basis *kind words and kindlier deeds. and not mere fancy.*

BEARING OF EARLY MARRIAGE ON THE PEACE AND HARMONY OF HINDU HOMES CONSIDERED.

Whether this quiet, undemonstrative attachment should be regarded as the highest kind of conjugal affection I am not competent to pass an opinion, and will not pass any. The Hindus, however, are content with it, and judging only from appearances, it seems to me that on the whole they have more peace and harmony in their homes than others who choose their partners when they are of age. In proof of it, one need note only the Calcutta Police cases in which the husband or the wife is the complainant. It is not every quarrel that is made the subject of a complaint before the Magistrate and yet we find every week, on an average, at least, half a dozen cases from which the Hindus, who form the great bulk of the population of the metropolis, are conspicuous by their absence. Is this not a great boon of which the Hindus may well be proud and would they not have a just ground for resentment should we try to deprive them of it?

QUESTION OF HARDSHIP FROM THE EUROPEAN POINT OF VIEW CONSIDERED.

The hardships which my European friends think, in their ignorance of the Hindu social economy, the Hindus must be put to, by having for their life-partners those in whose selection they had little or no voice, are more imaginary than real. Somewhow or other, these life-partners seem to like and love each other as much as others do and a few months ago I read of a case in Calcutta in which a boy swallowed a lage dose of opium to commit suicide because his father threatened to separate him from his wife by sending her to her father's, with a view to make him more attentive to his studies, which it seems he was neglecting in the pursuit of love. No doubt there are cases of *real* dislike and aversion, unlike that of Rukhmabai, but the number of those cases is very very small. We have a comparatively much larger number of such cases in our own infant community, where parties are allowed the right of selection. I do not think we can have, therefore, any just complaint against infant-marriage on this score.

[In this connexion, we reproduce the following observations of the *Statesman* newspaper of this city.—*Ed. Dawn.*]

"Every Englishman must be painfully impressed with the evils that attend the custom of deferred marriage, if not sometimes ready to doubt whether infant marriage may not be the less of two evils.

It is certainly not in India only, that parents choose the life partner of their children. Over the greater part of Europe young people have, we suspect, little practical choice in the matter. They marry those who are selected for them by their parents, and upon a broad survey of the general results, he must be a bold man who will affirm that deferred marriage and the unrestricted freedom of choice between the sexes, produce a larger amount of happiness and morality in the community, as a whole, than early marriages contracted under the sole will of the parents, while there is ever in the background, that terrible leprosy of which we are so slow to speak, and are so desirous to forget."—*Statesman, 1887.*]

A BENGALEE CHRISTIAN.

THE PROBLEM OF RELIGION ACCORDING TO THE RISHIS. —VII.—ELEMENTS OF MIND—TRAINING.

[*Continued from page 112, Vol. V.*]

The method of verification stands on the bed-rock of observation. As we have already explained in a previous article that the method involved three distinct processes:— (*a*) Observation (natural or artificial) of certain facts, (*b*) Using those facts to suggest a theory, *i.e.*, an *unproved* general proposition to explain some unexplained phenomena, (*c*) Verifying by further observation (natural or artificial) the consequences of the theory, assuming for the time being that the theory is true. Now this *observation* involves two factors: the thing or things observed, and the person that observes. When we observe physical objects, the observer and his senses combine, and the object observed is outside both, but the case is different when we have to observe facts or phenomena *within* ourselves. *There*, the observer has to divide himself into two parts, as it were; for inorder to observe correctly the inner facts of his mind, his thoughts, emotions, etc., he must be able to separate himself for the time from those thoughts, etc., he must not allow himself to be swayed by those thoughts and emotions when observing. For, is it not clear, being matter of every-day observation, that a person during any temporary period of subjection to an impulse or any passion, love, hate, fear, etc., identifies himself wholly with that impulse or passion and loses the power of seeing and thinking for himself? When we observe any outward object, we stand outside the object and we know how to fix our gaze on it. But the same process of abstraction, the getting outside the mind, as it were, is to us necessary if we are to watch the movements of our mind, our thoughts and feelings, the facts of our inner life. The scientific method of truth-in-

vestigation begins with observed facts, as I have already observed; and how is truth-investigation in spiritual science, of spiritual facts, at all possible, if we overlook this primary requisite of observation? And how is this observation at all possible if the mind is unable to watch *itself*? Therefore, no scientific treatment of the facts and phenomena of his inner life is to man possible unless he is so far advanced that can free himself from himself,—as it were, unless he and his mind can stand apart, the one watching and the other watched. This process of *detachment* of a man from the sphere of the mind itself; his standing apart from his own mind, to effect a survey and examination of his mind's functions; this high power of abstraction for purposes of external observation is, at the very root of all investigation of spiritual phenomena. The scientific method reveals to us most distinctly that any theories as to the cause of any phenomena must begin with the observations of *facts*, and that these *facts* must be used to suggest the theories which again have to be verified by further observation of *facts*. And this all-important consideration of our ability to observe facts, the *inner* facts of our lives, leads us to posit that in the investigation of spiritual truths, no progress is possible unless the truth-investigation has learnt the art of looking at himself and his mind as two separated units, the one observing subject, and the other the object observed. And this constitutes one of the most important elements in mind-training.

Thus, summing up, we may say that an analysis of the methods of truth-investigation in the West has so far led us to three important results:—

(1) The method of verification is a standing corrective of the habit of suggestions or *mere* belief of the mind as truth.

(2) The two-fold attitude of the Western scientist towards his theories—his confidence in them and his anxiety to verify them *all at the same time*—has shewn to us the true attitude of the truth-seeker in the investigation of spiritual problems.

(3) And thirdly—the necessity of correct observation of facts, which is the first requisite of the scientific method has shewn to us that to investigate into the higher problems of mind and inner life of man, we must practise the same process of (inner) observation; and we have seen that no such inner observation is possible without a high power of *abstraction*, or the capacity of the observer of standing apart from the mind to view and watch and examine its operations.

EDITOR.

A SPEECH FROM MR. R. P. PARANJPYE.

Mr. R. P. Paranjpye, the *first* Hindu Senior Wrangler and Fellow of St. John's College, arrived in Bombay, on 7th December from Europe and landed at the Ballard Pier, Bombay, where he was accorded a most hearty welcome by the different native communities of Bombay. He was garlanded and presented with a bouquet on behalf of the Reception Committee, and amidst the repeated cheers of the crowd was conducted to the waiting saloon of the Station.

Mr. Paranjpye, who was warmly cheered, in replying to the address, presented on behalf of Bombay Graduates by Sir Bhalchanda Krishna said:—"I thank you most sincerely for the very cordial welcome you have given me, and the flattering address which the Bombay Graduates' Association have presented to me this afternoon. After an absence of more than five years, I am now back again in my native land, and my joy on my return is heightened by the fact, of which I see only too much proof on all sides, that the kind interest which my countrymen were pleased to feel in me two years ago still continues unabated. Gentlemen, I am proud to receive this honour at the hands of the Graduates' Association, which counts among its members some of the most distinguised men in the presidency. One figure, however, I miss here to-day—the figure of one who by common consent was regarded during his life as the greatest son of this University—and who for may years exercised the most unbounded influence on young men on this side of India. I remember, gentlemen, how five years ago, a few hours before leaving for England, I went to receive the blessings of the late Mr. Ranade, and I know how warm and watchful was his interest in my career at Cambridge, Mr. Ranade has left us an example of how University men in India might utilise their opportunities for study; and youngmen like myself cannot do better than try to profit by that example. Gentlemen, on an occasion like this, I cannot help expressing my gratitude to the Government of India, whose scholarship rendered my stay at Cambridge possible, and to the University of Bombay that awarded me that scholarship. The Government have placed me under special obligations by continuing my scholarship for two years more after the usual period had expired. To my cousin, Prof. Karwe, my warmest acknowledgments are due for the systematic training that I received from him in habits of discipline and patient work, which training, I feel convinced, I principally contributed to whatever success I was able to achieve at Cambridge. Gentlemen, there are many kind things that you say of me in your address in regard to which I do not wish to say anything. There is one statement, however, about which I desire to say a word. You are pleased to speak in very complimentry terms about my resolve to devote my life to work in Fergusson College, I am not conscious, however, of any very extraordinary act of self-sacrifice in making this choice. The Fergusson College —my own old College—has all along engaged my deepest affection. The

principle of self-help which it represents, and the spirit in which so many of my old teachers are working there, has always appealed most powerfully to me. And in devoting myself to that institution, I not only secure to myself a continuance of the studies which delight me, but also place myself under the elevating influence of working for an ideal. Ladies and gentlemen, your address congratulates me on being well equipped for my future career in life. For this equipment, such as it is, I am indebted to the great kindness and the scrupulous fairness with which I was treated both at my College and at the University in Cambridge. The recollection of this kindness and this fairness of treatment will ever be one of my most cherished possessions, and I venture to think that this aspect of the question cannot fail to suggest a useful lesson to all of us.

I also desire in this connection to offer my loyal and grateful thanks to His Excellency the Viceroy for the gracious condescension in sending a message of congratulation to my old father as also to my college at Puna--a message that made me feel, I don't mind confessing, supremely happy and proud. Gentlemen, I do not propose to detain you longer. I am conscious, painfully conscious, that I have but poorly expressed what I wanted to say. But I feel sure of your kind indulgence, and I know that if my expression of thanks to you has been brief, you will attribute it not to want, but to excess of feeling. A study of mathematics, as you may know, whatever else it may do for a man, does not certainly confer on him powers of ready or eloquent expression. Moreover, in the circumstances in which I stand, even a practised speaker might find it difficult to give adequate utterance to his feelings. Here I am, a young man whose real work lies in front of him and not behind him, returning to my native land after an absence of more than five years; and I find a large and distinguished gathering of my countrymen, including many to whom I have looked up with feelings of profound respect all my life, disposed to form a most generous estimate of the manner in which I utilized my opportunities of study at Cambridge, and ready to accord me a welcome which I shall never forget. This appreciation of yours, so largely in excess of anything I may have deserved, only deepens the feeling which I have had for the last two years, that my studies at Cambridge have brought me in reality not honours, but a great responsibility. How far this responsibility, I may be privileged to fulfil, time alone will determine, but this I shall say for myself, that to the extent to which it can be fulfilled by hard and unremitting work, I hope I shall not be found wanting Ladies and gentlemen, I thank you once again for your great kindness to me this afternoon."

The reply of Mr. Paranjpye only confirms us in our estimate of that great man's character.

EDITOR.

HISTORY OF INDIAN GRAMMATICAL LITERATURE.—I.

In India *vyakarana* (grammar) is recognised as a *vedanga* (limb of the Veda) In *Paniniyasiksa* quoted by *Sayanacaryya* in the exordium to his commentary on the first hymn of the Rig-veda, we find that the Veda possesses six limbs which are thus enumerated :—

छन्दः पादौ तु वेदस्य हस्तौ कल्पोऽथ पठ्यते ।
ज्योतिषामयनं चक्षुः निरुक्तं श्रोत्रमुच्यते ॥ ४१ ॥
शिक्षा घ्राणं तु वेदस्य मुखं व्याकरणं स्मृतं ।
तस्मात् साङ्गमधीत्यैव ब्रह्मलोके महीयते ॥ ४२ ॥ (शिक्षा) ॥

Chhandah (the science of metres) constitutes the two legs of the Veda, *Kalpa* (the science of ceremonials) forms the two arms of it, *Jyotisa* (astronomy) is the eye, *Nirukta* (the science of etymology) is stated to be the ear, *siksa* (the treatise on phonetics) is the nose, and *Vyakarana* (grammar) is to be remembered as the mouth of it. Therefore it is only he who studies the Veda with the *angas* (the six auxiliary sciences) that rises to a high position in the world of Brahma.

Vopadeva, the celebrated author of the Mugdhabodha grammar, who is said to have lived at Devagiri in the Deccan in the 12th century A. D., makes mention of eight different *adi-sabdikas* (grammarians and philologists of the early days) whose works he consulted in compiling his Dh*a*tup*a*tha. Vopadeva says :—

इन्द्रश्चन्द्रः काशकृत्स्ना पिशली शाकटायनः ।
पाणिन्यमर जैनेन्द्रा जयन्त्यष्टादिशाब्दिकाः ॥
मतानि तेषामालोक्य सर्व्वसाधारणः स्फुटः ।
धातुपाठः स्वराद्याद्यक्रमादन्त्यादिमक्रमः ॥
कविकल्पद्रुमो नाम पद्यैर्निबध्यतेऽत्र च ।
धातवः पठिताः पाठसूत्रलोकागमस्थिताः ॥ (धातुपाठः) ॥

Indra, Chandra, K*a*sak*r*tsna, *A*pisati, *S*a*kat*a*yana, P*a*nini, Amara, and Jainendra—may glory attend these eight *adi-sabdikas* ! By examining their views, I compile in verse this Dh*a*tup*a*tha (Recital of Roots) named Kavikalpadruma (the Wish-yielding Tree of Poets), approved of by all and clearly exposed, in which the roots found in the previously classified lists and those occurring in the S*u*tras, ordinary usages and Vedas, have been arranged in the order beginning with those having *a* as their initial or final letter.

It is necessary to add here a short account of the eight schools of Sanskrit grammar mentioned by Vopadeva.

1. Aindra—No manuscript of the Aindra grammar has yet been recovered. But frequent references to the grammar of Indra are met with in the writings of Indian and Tibetan authors. Somadeva, the author of the Kath*a*sarit-s*a*gara in the 12th century A. D., says that the Aindra grammar was rendered useless by the system propounded by P*a*nini. In the commentary on the S*a*rasvata-Vy*a*karana mention has been made of the grammarian, Indra, in the following terms:—

इन्द्रादयोऽपि यस्यान्तं न ययुः शब्दवारिधेः ।
प्रक्रियां तस्य कृत्स्नस्य क्षमो वक्तुं नरः कथं ॥

[Even Indra and others did not reach the other shore of the ocean of words; how is man able to explain the etymological formation of words exhaustively ?] In the Buddhist Sanskrit work called Avad*a*na-sataka, translated into Chinese, A.D. 222-280, it is stated that S*a*riputra in his boyhood learned the grammar of India. In Lama T*a*r*a*n*a*thas history of Indian Buddhism and in the work of the Tibetan writer, Buston, we find that the first Sanskrit grammar was written by Sarvajñ*a*na (*S*iva) but this never came into Jambudv*i*pa. Then Indra compiled the Aindra grammar which Vrhaspati studied. This was current in Jambudv*i*pa, but was surpassed by P*a*nini's work. Dr. Burnell is of opinion that by Aindra grammar one must understand a school of grammar not a specific grammar by an individual· Thus, K*a*ty*a*yana in the Kath*a*sarit-S*a*g*a*ra is made to talk of "my Aindra grammar." Indra was fabled to have originated the science of grammar, but the Aindra grammar was the primitive grammatical science as handed down by various teachers.

2. Chandra—Chandra grammar is based on the system of P*a*nini. The author, Chandra-gomin is generally believed to have lived, in a place called Chandra-dv*i*pa in Kashmere about 400 A.D. If I remember aright Dr. G. Buhler holds the same opinion. But in the correspondence of Mr. A.B. Keith with Prof. Rhys Davids on the date of Kum*a*ra-d*a*sa as published in the Journal of the Royal Asiatic Society, July, 1901, we find that Liebich (Vienna Oriental Journal XIII, 313-5) has shown from the example "*ajayad Gupto Hūnain*" that Chandra-gomin, the author of Chandra-Vy*a*karana lived circa A.D. 480. Kielhorn (Indian Antiquary XV, 183-5) shows that Chandra was used by the K*a*sik*a*-Vrtti. As regards Chandra-dv*i*pa, Rai Sarat Chandra Das Bahadur, C.I.E., tells me that it is the same as V*a*kt*a*-Chandra-

dvipa which forms a part of the district of Backergunge in Lower Bengal.

Chandragomin was undoubtedly a follower of Buddhism. In the opening lines of his grammar he makes obeisance to Buddha as follows:—

सिद्धं प्रणम्य सर्व्वज्ञं सर्व्वीयं जगतो गुरुं ।
लघुं विस्पष्ट सम्पूर्णमुच्यते शब्दलक्षणम् ॥

"After bowing down to the accomplished, omniscient and merciful Teacher of the universe, I proceed to explain the nature of words in a manner which is brief, reliable and perfect."

3. K*a*sakrtsna—a grammarian and philologist probably posterior to P*a*nini.

4. Apisati—a grammarian quoted by P*a*nini in the s*u*tra, 6-1-92. He is also quoted by Ujjv*a*ladatta (11th century A. D.) in the Un*a*di-sutravrtti 1—18, and 4—174; and by S*a*yan*a*ch*a*ryya (14th century A. D.) in the Dh*a*tuvrtti and Padachandrik*a*.

5. *Sa*kat*a*yana—quoted by P*a*nini in the s*u*tra, 8-3-18. He has also been cited as an authority in linguistic matters in the Yajurveda-pr*a*tis*a*khya the Atharvaveda-pr*a*tis*a*khya and the Nirukta of Y*a*ska. Dr. Burnell says that "the actual grammatical text-book of the Jains, which passes under the name of *Sa*kat*a*yana, quotes the opinion of an Indra; the commentary (by Yaksavarman) explains this name by "Indra Ach*a*ryy*a*." Dr Burnell further says, "of *Sa*kat*a*yana there are fragments in the same collection (Leyden MSS, at Madras), and a complete copy of the text and Un*a*di-s*u*tra (in the Malay*a*lam characters) among the manuscripts I presented to the India Office Library in 1870. I have since procured other complete manuscripts of the text, commentary, &c. All these are Jain manuscripts from the Canarese country."

Upon an examination of the contents of the manuscripts, scholars have decided that the *Sa*kat*a*yana grammar as we have it, is not in the original grammar; but that it is only a comparatively modern reduction of an older treatise effected under Jain influences in Central India not much earlier than the 12th century A. D.

6. P*a*nini—the most eminent Sanskrit grammarian, generally believed to have flourished in the 4th century B. C. His grandfather was Devala and his mother's name was D*a*ksi. He was born at *Sa*l*a*tura in G*a*ndh*a*ra (in the Punjab province.) K*a*ty*a*yana about the third century B. C., wrote a *vartika* on the *sutra* of P*a*nini; and Patanjali

about 150 B. C., wrote a *bhasya* on it. Jay*a*ditya (who died in 661 A. D.) and V*a*mana jointly wrote *Kasika-Vrtti* on the grammar of P*a*nini. Jinendra-buddhi in the 8th century A. D. wrote *Nyasa* on it. The Un*a*di-*su*tras found in the grammar of P*a*nini are not his own production. These *su*tras have been attributed by Nagoji to *S*akat*a*yana. But this is improbable. Prof. Max-Müller has pointed out four words in the Un*a*di-*su*tras which could hardly be known in P*a*nini's time: 1. *Jina* (3—2); 2. *stupa* (3—25), 3. *dinara* (3—140) and 4. *tirita* (4—184).

P*a*nini alludes to *Yavana* and *yavanani* in the sūtra 4—1—49:—

इन्द्र-वरुण-भव-शर्व-रुद्र-मृड-हिम-अरण्य-यव-यवन-मातुल-आचार्याणाम् आनुक् ॥ ४-१-४९ ॥

When the feminine suffix *nis* is added to these words, the particle *ānuk* is augmented to them. The rule applies to the word *yavana* for signifying *lipi* or writing; thus, *yavanani* means "the writing of the *yavanas*." It is however not clear whether the word *yavana* refers to the Greeks or the Persians. Dr. Benfey understands by *yavanani* "Greek-writing," but he places the completion of P*a*nini's work as early as B. C. 320. In that case, he thinks P*a*nini "had already had the opportunity during six years of becoming acquainted with Greek writing in his own immediate neighbourhood without interruption, Alexander having, as is well-known, established satrapies in India itself and in the parts adjoining"—in the vicinity of the Indus, near about which P*a*nini's birth-place was. Dr. Weber is of opinion that the name *yavana* first become popularized in India through Alexander, and the word therefore signifies the Greeks (Ions).

The Chinese pilgrim Hwenthsang visited Sal*a*tura the birth-place of P*a*nini who is known by the name of Sal*a*turiya (P*a*nini 4—3—94).

Cunningham identifies it with the village of Lahor which is 4 miles north-west of Ohind.

7. Amara—the celebrated lexicographer, was a Buddhist. He is traditionally known to have been one of the nine gems of the court of Vikram*a*ditya of Oojein, 56 B. C. But he is now generally believed to have lived in the 5th century A. D. In the Amara-Kosa, the term *dinara* occurs. *Dinara* is a Greek coin, and Amar's use of it makes him scarcely any earlier than 400 A. D. Mr. E. J. Rapson (in the Journal of the Royal Asiatic Society, April, 1901) says:—" It is certainly most curious to find the *dinara*, represented by the gold coins of about the weight of our sovereign under the Gupta dynasty in the 4th century A. D., and on the other hand, in Kashmere some eleven centuries

later, under the form *dinnara*, degraded to a money of account so infinitesimal that some 3500 went to make up one rupee."

8. Jinendra-buddhi—manuscripts of the Jinendra-Vyakarana are to be found at Madras. I think this Jinendra is the same as the Buddhist grammarian Jinendra-buddhi who wrote the well-known *nyasa* on the grammar of Panini in the 8th century A. D. Mr. Colebrooke, however, says that Kavya Kamadhenu by Vopadeva refers to a Jinendra *and* a Jinendra-buddhi.

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Royal Asiatic Society, London.

LITERARY NOTES AND NEWS.

"Our Indian Trips."—This is a little book of 130 pages in which the author, Mr. Gopal Chunder Das, B.L., Solicitor, Calcutta High Court, treats us in very decent English to an account of his travels through various parts of India. We were specially interested in his descriptions of the holy places and shrines of India, and though these leave much to be desired, still we think that the ordinary English-educated reader will derive much information therefrom; and even the heterodox among them may find some food for devotional reflection. The Hindu temples and shrines of India may be and have been viewed from various standpoints. There is a *Curzon* with his cosmopolitan interest in them as the great artistic remains of India; for whom "art and beauty and the reverence that is owing to all that has evoked human genius, or has inspired human faith, are independent of creeds, and in so far as they touch the sphere of religion, are embraced by the common religion of all mankind."* There is a *Birdwood*, whose special delight is in promoting and preserving Hindu Art as the surest and easiest means of "preventing the destruction of the historical personality of the Brahmanical Hindus and their disappearance as a destinctive race," because, as he thinks, "Hindu graphic art, being in all its phases—in architecture, sculpture and painting—the expression of Hindu religion, and in every application of religious significance, its traditions once broken with; the break-up of all that we understand by Hinduism will inevitably follow"†, because as he thinks, "the arts of India being still living arts, afford a far more efficacious rallying centre for the revival of the indigenous and traditional culture of the Hindus than their literature; † These are some points of view from which the heterodox English-educated reader may look

* From Lord Curzon's speech on "Ancient Monuments in India delivered before a meeting of the Asiatic Society of Bengal; 1900.—*Ed.*

† From a speech delivered by Sir George Birdwood at a meeting of the National Indian Association, Nov. 6, 1899.

at the question of the supreme importance of the preservation of the Hindu architectural remains of India. There are others, however, who find in the existing monuments of Hindu ritualistic art proper objects for the exercise of a personal faith in gods and goddesses of their ancient religion and these will no doubt like to read the descriptions of various holy places, shrines and institutions from the pen of a representative of the modern school of youngmen like Mr. Das, who so far as we are able to judge, have "nought extenuated or set down aught in malice." We would close this short notice with the following quotation from the book. "In the evening, we sauntered about the different alleys and visited various temples and courtyards"—(in Brindaban); "all of which were ringing with the sonorous music of the khol and the karatal, lauding the glories and deeds of the sweet *Radha* and her lord *Kissenjee.* Indeed, this sort of sankirtan music is going on all the while, whether in the day or in the night; in almost every temple and *Kunj* (lodging-house) at Brindaban which is pre eminently a *Vaishnava* shrine. Old men and women, all Bengalis, and mostly of the *Bania* caste are to be found pottering about the lanes in any number, and the number of *Babajis*—wearing the sacred *tilak* mark over the whole length of the ridge of their nose and over the whole breadth of their forehead, while holdling the mysterious *Koodo-jali* within which performing the invisible operation of telling their beads—is a legion and they are to be found constantly going about at any hour of the day or night. These Babajees, by the way, are not a bad lot, as most of their brethren are at Calcutta,—for they would take an immense amount of trouble to befriend a stranger or attend to the needy, such as would seek their assistance. Their principal place of resort is the *Sevakunj* where any number of them congregate of an evening to chant the sacred hymns." Mr. Das's attitude, evidently is that of an outside observer who gives his Hindu readers a bit of his mind and would not hesitate to tell him that, the spirit of faith apart, all is not well at the holy places and they would be all the better for some overhauling at the hands of all true Hindus.

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Thoughts on the Bhagavad-Gita.—(First Series)—By "The Dreamer," published by the Theosophical Publishing Society, 120 2, Musjidbari Street, Calcutta. p. 139, price—Rupee one (cloth bound edition).—This is a work which we can confidently recommend to all true students of the *Gita*, and specially to the English-educated section of them. The present part presents a very clear, systematic, and, to our mind, correct exposition of all the principal thoughts, ideas and teachings of the first two chapters of the *Gita*. The presentation in English of ancient Hindu thought must always suffer from difficulty of expression; and Hindu philosophical thought being highly abstract in character is doubly difficult of such expression in a foreign tongue like the English. The coin-

age of new, and sometimes uncouth words, the twisting of English words and phrases into new meanings for purposes of expression of Hindu philosophical concepts have been going on apace during the last twenty years or so, not only to the enrichment of the English-tongue, but also to bridge the gulf between ancient and modern modes of thought; to the creation, in fact, of a new type of English literature. We are led to make these remarks by a perusal of the "Thoughts on the Bhagavat-Gita" by the "Dreamer" who (whatever faults we may find with the race to which he belongs) does not certainly express his ideas and thoughts, in the language of dreams in the book before us, but who has in his phraseology sought to strike the happy mean between the language of the philosopher and that of the ordinary educated man. Still at times, we find his language somewhat stiff, even stilted, and in some cases, also meagre. But these are only occasional lapses which do not take away from the general merits of the book, both as regards manner and matter; and we are even persuaded that if the writer, who has, it seems, learnt his English to some purpose, should but try it, he would be able not only to remove the special defects to which we have drawn attention in only general terms, but also to increase the undoubted usefulness of his book by leavening his language with a more popular strain. We once more commend the book to the notice of all earnest students of the *Gita*; for the *Dreamer*, unlike his class, has here ably expounded certain general fundamental *Sastric* principles relating to man and his life in the light of which the highly condensed presentation of philosophical teachings in the *Gita* loses much of its severity and gains also in value for the less initiated among its readers. The *Dreamer's* work, however, requires to be supplemented, if possible, by the labours of others who would follow in his lines and make the subject of popularisation in English of Hindu religious philosophy their special study; and the *Dreamer* himself in his less strenuous moods might find such study pleasureable as well as invigorating.

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Books received:—Vedanta and its Relation to Modern Thought by Sitanath Tattvabhushan, consisting of seven lectures delivered before the Theological Society, Calcutta, during session 1900—1901: Price Rs. 1-4. Pp. 188.

(2). **Hindu Theism.—A Defence and Exposition.**—By the same author, consisting of eleven chapters. Price Re. 1. Pp. 160.

(3). **Tukaram-charita (Life of Tukaram in Bengali)** by Jogendra Nath Bose, B.A., the well-known author of the life of Michael Madhusudan Dutt. Price ten annas. Pp. 182.

We extremely regret that we cannot review these books on the present occasion.

Dasaratha or the Fatal Promise—A Tragedy.—By M. Krishnamacharya, B.A., Tutor, Madras Christian College. Pp. 88, price—eight annas only, to be had of the Secretary, Vidvan Mano-Ranjini, Madras.—This is an original production in English published under the auspices of the Vidvan Mano-Ranjini which is a Literary Society enjoying the patronage of Hon'ble Rai Bahadur P. Ananda Charlu, B.L., C.I.E., Vidyavinod, Member, the Viceroy's Legislative Council, who is the President of the Society. That Society has for one of its main objects the production and publication of dramatic and other compositions illustrating Hindu habits and manners, thoughts, sentiments and ideals. We could never think of a native of India who could so powerfully wield as our author does a foreign tongue, so as to be able to give such forcible and faithful poetic expression to Indian thoughts and ideas as we meet with in the work under review. We accordingly accord our author a hearty welcome and wish him success in his self-imposed labours.

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Sir George Birdwood on Indian Sanitation and the Code of Manu.—At the Jehangir Hall of the Imperial Institute on November 15th, D. M. L. Dhingra, Assistant Health Officer of Stoke Newington, gave a lecture on Indian sanitation, in which he favoured resort to coercive measures in the interests of public health. Sir George Birdwood, who was in the chair strongly dissented from this view. He pointed out that the ancients generally were alive to sanitary necessities, and that in many respects modern science had failed to improve upon their methods. The ancient books of the Hindus, like those of the Parsees and the Hebrews, were full of sanitary teaching. *The Code of Manu and other law books had, through a hundred generations of the lives of men, saturated the Hindu race to the bone with an overwhelming sense of the importance of personal and domestic cleanliness.* They were, in fact, *the cleanest people in the world their* working classes were infinitely *cleaner than* ours; their higher and educated classes were quite as clean as ours, and cleaner far than those of Russia and one or two other European countries he might name. Much more could be done with the people of India by appealing to the authority of the *Code* of *Manu* and their inherited instincts, than through the inquistive, corrupt, and oppressive interference of the police which Dr. Dhingra would invoke. The country would not stand the cost, nor the people the intolerable tyranny of that interference. The sanitation of the Code of Manu was ceremonial, and much of it might be fanciful, but it had served a great and beneficent purpose in developing among the people a high ideal of *personal and domestic cleanliness.* The manner in which it reminded those who regarded it as of Divine inspiration of the supreme importance of *a clean mind, a clean soul,* and a clean *character,* elevated its whole teaching to the high plane of *religious duty.* If Dr Dhingra would look into the Code of Manu he would find that the *place of the risings of the suns*—of all our Western moral and material illumination—had ever been in the East. *Ex Oriente Lux.*

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A Remarkable Book.—"A Study of the Bhagavat Purana".—By Purnendu Narayan Sinha, M.A., B.L., Government Pleader, Judge's Court, Bankipur: giving the substance of the Purana, Book by Book through the whole of twelve Books (Skandhas), from the Theosophical standpoint. Pp. 436; price Rs. 2-8annas. To be had of the Bengal Theosophical Society, 28/2, Jhamapuker Lane, Calcutta. We will refer to this very remarkable book in another issue.

Uttarpara
Jaikrishna Public Library.

THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—*SANKARA.*

WHOLE NO. LV. } CALCUTTA, FEBRUARY, 1902. { No. 7. VOL. V.

"BLESSED ARE THE PURE IN HEART, FOR THEY SHALL SEE GOD."

[By Bepin C. Pal, Editor, New India.]

Three most, essential and important facts of the highest religious experience of man have been brought together and presented in strict logical order, in the text before us, namely, Blessedness, Purity of heart, and Vision of God. The first fact, in the order of actual experience is, evidently, purity of heart; out of this purity of heart comes, as a necessary sequence, vision of God; which again, with the force of an equal necessity, results in blessedness, in that peace which passeth understanding. To realise the full significance of this, the profoundest, as it seems to me, of all the sayings of Jesus, we must try to get at the inner truth of these three great facts, first, separately considering each by itself, and then, collectively, in their psychological relation to one another.

Let us take the last term first, the term, namely, God-vision. This is the central idea in the text, which regulates the second term, and brings it in necessary relation to the first. Purity of heart must be judged by its fruit, which is seeing God. Blessed are the pure in heart for they shall see God. Not may or will, but *shall* see, which signifies not mere possibility or probability, but absolute certainty. What does this *seeing* mean? The expression is metaphorical, but it cannot be a meaningless, or a careless, metaphor. There is always a deep element of truth in all proper metaphors. The first use of a metaphor is due to the recognition of some close resemblance between two things, or acts, or modes, that are joined together in the metaphor. Those who applied the term, *vision*, to their experience of the Divine Presence, must have observed some

close resemblance between it and their ordinary, sensuous, visual experience. Once the metaphor found currency in literature, others, no doubt, might use it, without knowing or caring to know its deep significance and hidden truth; and then the metaphor would indeed be meaningless. But Jesus was not a careless speaker, neither did he draw upon other people's experiences or expressions. He always based his teachings upon the realities of life about Him. He spoke and taught not from books, but from the depths of his own spiritual life. It was, therefore, that he could speak as one having authority, spoke as no other man of his time, or country ever spoke. We cannot, we dare not, dismiss any of his sayings, much less the deepest and the most important of them all, that which seems to sum up his highest experience, as mere metaphor. Seeing God must have been a reality to Him, or Jesus would never have spoken of it. Saints and seers in other lands have also spoken of it. "Hear, ye children of the Immortal," cried the Vedic saint, "I have seen God who resides on the otherside of this darkness." "This God is to be seen, heard, and repeatedly meditated upon" says another Indian sage. "When the soul sees its God," writes a third, "the knots of the heart," that is all selfish desires "are cut through, all doubts are dispelled, and all self-regarding activities absolutely cease." **The experience was not unique with Jesus.** That it was real, his own life, and the recorded experience of the race as found in ancient scriptures, conclusively verify. For, truly had the knots of his heart been pierced through, all his doubts been dispelled, and all self-regarding activities ceased. Jesus had seen God, and had known both the conditions and the results of that blessed vision. And it is of these that he spoke in the text before us.

What was the nature of that vision? In the first place, we must directly dismiss all ideas of actual visual perception with reference to the conception of God such as either Jesus, or the ancient Indian sages who spoke of God-vision had. Both in the Upanishads, and in the teachings of Jesus, the absolutely spiritual character of the Deity has been most persistently and forcibly emphasised. It is not with the eye that such a God could be seen. Our eye is only one of the avenues of knowledge. Does seeing God then, mean, mere knowing God? It need not be said that the element of knowing must necessarily enter into man's vision of God. Yet we can know of a thing without seeing it. We know historical incidents, the conquests of Alexander or the martyrdom of Stephen, though we never saw them. We may know God, similarly, without seeing Him;

know Him through tradition or know Him from scripture. But this traditional, this scriptural knowledge of God, however reliable the tradition, or authoritative the scriptures, is evidently not the sort of knowledge which Jesus wanted to indicate by the term seeing God. Such knowledge neither demands purity of heart as its essential pre-condition, nor leads to blessedness, as its necessary result. It is clear, therefore, that though *seeing God* mut necessarily mean knowing God, *that knowledge is something other than what we gain from scripture or tradition.*

As we can know God through scripture and tradition, so also we may know Him, in a way, through processes of intellection, through the process of reasoning; and this intellectual knowledge of God is decidedly higher, more intimate and sure, more personal and positive, than scriptural or traditional knowledge. But the question is,—can we apply the term, *vision*, even to this class of our knowledge of God? Here stands my watch, I look into it. I examine it, and from an examination of its mechanism I form certain conceptions about the mechanic. But, to see a watch and infer from it something about the character of the watch-maker must be very different, indeed, from seeing the watch-maker himself, who may or may not justify our inference, who must, indeed, necessarily be something much more than what we could have inferred about him from a particular spacimen of his work, which was at least only a very fragmentary revelation of his life and character. By an examination of the creation, our reason may infer a creator, and may even carry that inference to its farthest possible limits, and ascribe various attributes to Him. Through repeated thought this inference may grow into a conviction; and our imagination may even clothe this deducted, this inducted, this inferred Being with all grandeur and loneliness, and our emotions may lose themselves in rapture in the contemplation of the vision that reason has conjured up; and though our religious instincts may find scope and satisfaction in this *idealisation*, and though our lives may be illumined and our characters elevated *to some extent* by it, still even this knowledge and this worship of God are something very different from that supremely sacred and beatific experience which the saintly sons of God have in all lands characterised as the vision of their Heavenly Father. We have ourselves experience of this intellectual knowledge and worship of God, but can we honestly testify to that absolute purity of heart, which Jesus speaks of as the essential pre-condition of seeing God, or have we had that blessedness which he declares to be its necessary result? Alas! we know God intellectually sometimes

much too well, but no more can a knowledge of the chemistry of water satisfy thirst, than can mere intellectual, mere philosophical and theological conceptions of God purify the heart or bestow blessedness and peace. The knowledge of God indicated by Jesus, in the expression, "for they shall see God," must be different from both the kinds of knowledge we ordinarily have of Him, different that is, as much from the scriptural and traditional, as from the ratiocinative and inferential knowledge of His being and attributes.

What, then, is the character of that knowledge of God of which Jesus speaks in the text? Why did he use the word, *see*, at all? The secret of it, I think, must be sought for in the nature of our visual knowledge. And the two essential and universal characteristics of our visual perceptions, as, indeed, of all our sense-perceptions, are first, the immediacy of the object to its own particular sense; and second the absolute dependence of the preception upon the presence of its object, and not upon anything that the percipient subject may desire or do. In other words, all our sensuous knowledge is immediate, direct, and objective. Our visual perceptions partake of this universal character of all sense perception, and the particular kind of knowledge of God indicated by Jesus, in the expression they shall see God, must necessarily partake of this essential element of all seeing; **it must be, that is, both immediate and objective.**

Indeed, it is only by sufferance,—by a kind of license, as it were, that we can apply the term immediate to our sense-perceptions. For, we know sense-objects really not directly, but through the forms of our own mind. Where these forms are wanting or undeveloped, no knowledge of external objects or operations is possible. Whatever may be the truth about current theories of cerebral localisation, it is a matter of very common experience that those who have no music, or poetry, or sense of size, or idea of numbers in them, can never understand mathematics, or appreciate poetry, or enjoy music. In all our knowledge of outside objects, the contents are supplied from without, but the forms without which these contents could not shape themselves into objects of our knowledge are found by our own minds. Our minds, thus really, mediates between ourselves as subjects, and our objects. We know other minds also, not directly, but mediately through language, act or expression. The knowledge that we claim to possess of the character of our most intimate friends and closest associates, has got an essential element of inference in it. We know all things as through a glass, darkly. But our highest knowledge of God is different from this. Him alone can we know,

face to face, directly; know Him even as we know ourselves. For *He is the one universal element of all our knowledge. We know Him not through the world, but when we reflect upon the process of our knowledge and thought, we find that on the contrary the world is made known to us through Him* And yet alas! men talk of mediation and mediator as being absolutely necessary for man to know God. Mediation is needed between one particular and another; not between the particular and the universal, which is at once the essence and the condition of its being. Mediation is needed between one finite object and another; but not between the finite and the *infinite, which includes it and enters into it.* It is needed between one related object and another, but not between the relative and the absolute which is the one universal basis of all relations. It is needed between man and man, but not between man and God, for *God is in man, and man is in God.* The universal is the logical condition of all thought: as the True, He forms at once the root and realisation of our intellectual life. The universal is the logical condition of all art: as the Beautiful. He forms at once the source and satisfaction of our æsthetic life. The universal is the logical condition of all ethics: as the Good, He is at once both the form and the norm of our moral life. He is in us, and we are in Him. He is the Highest Self our our self, the Innermost Being of our being. Our substance and our sufficiency are not of us, but of Him. As our Hight Self, He is eternally united to us; and yet as the one Supreme and Eternal object of our thought, love, worship, and service, He stands eternally apart from us. Thus, our highest and truest knowledge of Him is *truly immediate, and yet truly objective.* To know Him thus, to realise this relation between God and the soul, in actual experience is to see Him.

Now let us take the second term of the text,—the term which, psychologically, comes first, the term, namely, "*pure in heart.*" What are we to understand by it? In the first place, what is the nature of the concept, *purity*? When do we call a thing pure? When it is not mixed up with anything else, will be the usual reply. Pure silver is silver without alloy. That, of course, is one of the ideas involved in the concept, purity. But does it exhaust the whole concept? Cannot impurity arise out of certain changes in a thing itself without its being mixed up with anything else? A pure thing is not only that with which nothing else has been mixed but that which has not been decomposed, that is the different components of which have not fallen out of their natural relations. The fundamental of idea of purity thus

is the state of an object existing in its own true and proper nature.' An impure thing is that which is not in its own nature, which indeed has ceased to be itself, has become some other thing. In the lower orders of existence among objects that are created only to serve some ephemeral ends, a thing may become impure in one state, and yet through a change of its nature and purpose may become pure in another state or combination. Milk ceases to be pure milk as soon as it curdles, but then it may become pure as cheese. Not so, however, with man. He is created not to live for a time, but to grow through eternity, not to serve temporary purposes, but to realise eternal ends. Purity and impurity which are, thus, only relative states in the lower creation, are *absolute laws to him* He cannot be pure from one stand-point, and impure from another. He can fall off from his own nature, but cannot altogether cease to be himself; and change absolutely into something else. This is at once the highest blessing and the greatest curse that God has pronounced upon man, he can only attain the highest, or attain nothing at all. And when he strives to attain that highest, he is in his own nature, he serves the purposes of his being, is truly pure!

Purity, then, is that state of an object when it exists in its own true and proper nature and serves its own heaven-appointed purpose. But what are we to understand by the word *heart*, in the text before us? The *heart* with us is the symbol and seat of the emotions, the spring of the desires:—the root of the motives of action. Does the expression, *pure in heart*, then mean purity of motives? Does it mean what is usually understood by *moral purity?* But moral purity, purity of motives, single-minded devotion to truth and duty, has been found among atheists and agnostics on the one side, and among votaries of decidedly lower and objective firms of religion on the other; in neither of which cases could *seeing God*, in the sense in which evidently Jesus uses the expression, could at all be possible. To understand by pure-in-heart, mere moral purity, would be to degrade religion to Matthew Arnold's standard of morality lit up by emotions; and to destroy or disregard the organic unity of the text in which it occurs. We must, therefore, look for some other meaning of the term, *heart*, here. Among the Hebrews, the seat of the emotions was the bowels and not the heart, which in the Old Testament means always the *understanding*. And *heart* must mean, in the text before us, it seems to me, the understanding and not the emotions. For it is clear that when our understanding is in its own proper nature, when our reason is pure and unclouded, it is then only that we can see God; because, when reason

knows itself and understands itself truly, it must find itself eternally conditioned and controlled, absolutely hemmed in as it were, by the Being of its God. No more, indeed, can we see or know material objects without at the same time seeing or knowing the spatial relations in which they exist, than our understanding can perform its own proper function, that is know itself and others, without seeing or knowing the Infinite Reason and the Supreme Soul. The human and the Divine live together as shadow and sunshine, says the Vedanta, and to see the truth about the one is to realise the reality of the other.

But though the word, *heart*, must, as it seems to me, mean in this text, the understanding only, we must not forget that *purity of the understanding involves essentially purity of desires and motives*, that is, absolute moral purity. The province of the understanding is truth: its proper function is to realise the correct bearings of things, to recognise the real relations of objects. But how often are these relations, to all appearance, completely destroyed, and these bearings absolutely lost through the conflict of our passions and the destructions of our desires? Anger and hatred, envy and jealousy, the maddening pursuit of wealth or honour, slavish subservience to the cravings of the flesh, in a word, every form of moral distemper distorts our vision and vitiates our judgment, contributes to the *impurity, that is, of our understanding*. In fact, the balance of our mind is equally disturbed, and our capacity for right discernment often times destroyed by even what ordinary standards of morality would not only not condemn as wrong, but would even perhaps commend as right. The tender affection of the mother for her child, the devotion of children to their parents, the pure passion of the maiden for the youth of her choice, or of the youth for the maiden he loves and honours; the pursuit of science or the worship of art that counts no sacrifice as such, and welcomes poverty and privations, in its attempt to discover some hidden law of the universe, or to reveal through brush or chisel, some unseen and unutterable loveliness of the face of nature or the form of man; nay even the deep concern of the philanthropist for the well-being of fellow-men,—virtues that we unanimously honour and applaud, even these may, and alas! frequently do *disturb the purity of our understauding and shut out the vision of truth.* The mother loses her child and denies her God. The patriot sees his beloved fatherland fall, despite the wisdom of its counsellors, the self-sacrifice of its citizens, and the valour of its armies, a prey to foreign tyranny and alien misrule, and his grief

for his people blinds his vision of their God. The philanthropist fails to remove human miseries, and forgets the goodness of divine government. The *cause of the impurity of the understanding lies thus much deeper even than what is ordinarily regarded as immoral.* It lies, indeed, in every form of attachment to external, to sensuous, to created objects. "Men think constantly of created, sensuous objects," says the Bhagavad-*Gita*, "through this constant thought of them, they become attached to them, from attachment arises the desire of appropriation; this desire, being frustrated, causes anger; through anger, comes distraction; from distraction arises want of discrimination; and when the power of discrimination is lost, destruction overtakes their moral and spiritual nature. Purity of heart consists essentially in this power of right discernment, and *so long as sensuous pleasures, however innocent, and creature affections, however unobjectionable, form the sum total of our actual practical life, so long we are not, and we cannot possibly be, truly pure in heart.* It is attainable only through what Jesus called the laying down of this life,—through *absolute renunciation.*

This absolute renunciation, the essential pre-condition of purity of heart, is, indeed, the one universal law of higher, of spiritual life. It has been practised and preached by the prophets of this higher life in all lands and at all times. The Prophet Prince of Kapliavastu practised it, and proved it in his own life, and his great Renunciation has been left as an eteranal heritage to humanity. Long before the Buddha, the teachers of the Vedanta had practised and propounded the same great truth in the primeval forest retreats of India. Jesus Christ practised it and preached it, and proved its efficacy and its power in his own wonderful life. But *Christendom has not as yet realised the deep significance of this great truth,* which Christ preached, with his lips and sealed with his blood. A few no doubt tried to realise it in the middle ages, through unfortunately imperfect methods; and seeing the failure of those methods the many have, with the thoughtlessness characteristic of the many everywhere, voted Jesus's great ideal as not merely impracticable, but even as false and misleading, as subversive of all normal laws of human life and growth. But the failure of any particular means to realise a definite end does not necessarily condemn the end itself. Indeed, the initial mistake of monkish disciplines and monastic practices consisted in their practically taking the means for the end. But renunciation is not an end unto itself; but only a means to a higher end. Lay down this life, said Jesus, but he did not ask his disciples to lay it down,

for good, and be lost and dead for ever, no, but only lay it down to take it up again, in a larger, a fuller measure. The grain put under the soil is decomposed and destroyed but destruction is not its end, but germination; it is put under ground to come up, after a time with fresh powers and new and enlarged possibilities, to reproduce itself a hundred, a thousand-fold. We too need to go out of life and love, as it were, for a time, to be free from undue attachment to created objects and creature affections, which blind our vision of the Creator. But when through purity of heart gained through this renunciation, gained as Jesus gained it, through his forty days' fasting and prayer in the wilderness; as the Buddha gained it through those long and dreary years of ascetic discipline,—when through purity of heart thus gained, the soul is enabled to see its God, it enjoys life and love a thousand, an infinite-fold more, because it enjoys these then, with its God. Then only is understood the true value of life, then is seen indeed the perfect beauty of love. Then the heart knows, as the Vedanta says,—not for the wife is the wife beloved but for God is she so beloved; not for the husband is the husband beloved, but for God is he beloved. Not for the son, is the son loved, but for for God is he loved. Not for knowledge is knowledge loved, but God is knowledge loved; and so forth through every object and relation of life, is God made, then, the predominant, the normative, the absolute standard. And when this is done, when God is seen and realised through every relation of life, what room is there for sin or sorrow, what room is there for distraction or disappointment? Then is realised that perfect peace which passeth the understanding: **blessed, indeed, are the pure in heart, for they see God.**

BEPIN C. PAL.

[**Note by the Editor, Dawn.**—The above was delivered as a sermon by our distinguished countryman, Mr. Bepin C. Pal, in the Manchester College, Oxford, and through our friend's courtesy for the first time appears here in print. If the inner truths of life and being could be as well exposed by our Christian Missionary brethren as Mr. Pal has exposed them, and if they were able to understand and appreciate Jesus' teachings in the manner of Mr. Pal, Jesus would come out before us in a purer and more radiant garb than that in which He is now unfortunately presented, and then there might be hope of greater *rapprochement* between the view-points of two races who seem destined under God's providence to live and work together through the years of the century. The spirit of exclusiveness or

monopoly, however, which is the mark of all sectarianism in the presentation of the religion of Jesus stands in the way. The spirit of exclusiveness, however, is in man himself and not in the religion which he professes; and although nominally the master, guide and philosopher of its professed votaries, religion is, through slow, silent degrees, imperceptibly soon turned by them into a most effective instrument for ministering to their vanity, pride, arrogance and all carnal desires of power and pelf.]

LINES ADDRESSED TO DR. SARAT K. MULLICK.

[*After meeting the illustrious patriot in the house of a common friend in Calcutta.*]

I.

A mighty name—thy lofty heritage
From o'er-sea lands of glory—thou didst bring;
But you came not in thunder nor in rage,
And the heavens broke not,
And the clouds poured not,
But straight you lighted—the most simple thing.

II.

Simple thy motions, ah! simple thy dress,
— *One* snow-robed flower midst pageant throngs that press;
And there's charm in thy voice—light in thy eye,
And you would draw us e'er—I know not why,
And still you would draw us—I know not why,
And you will leave us—the thought would make me sigh.

III.

Thy trailing clouds of glory we forget
In clearer vision of thy delightful eye;
And in thy love, thy might of power they forget,
As locked in thy embraces Indians lie;
And distance of thy exile they forget,
In charmed music of thy fame from high.

IV.

This tainted homage of an impure heart
I offer ; accept ; what else is mine ?
For half-thought, ill-graced words unbidden start
And broken lines, to shame my lips and thine :
And I have given my all—what else is left ?
Mem'ries of sweetness and of visions blest !

January 2nd, 1902. SATISCHANDRA MUKERJI,
Editor, the Dawn

THE INDUSTRIAL DEVELOPMENT OF INDIA.

Preface.

The industrial development of India is a question which has so many aspects—each of which can be viewed from a great many different standpoints—that it is hardly surprising to find a great dissimilarity in the opinion and judgment of different authorities. In these circumstances it is wise to distrust those who, with loud voice, proclaim a sure and simple solution of all the difficulties of the subject, and, on the other hand, we must avoid the even greater danger of believing that a *laissex farie* or let-things-alone policy is the only possible one. For the public it is more important to obtain a general idea of the direction in which progress may be expected, and to understand the evil effects which may come from taking a wrong direction, than to attempt to enter into technical details which only experts can properly appreciate. So I will not in this paper inflict upon the reader many technical details.

On what the industrial development of a country depends: contrast between England and India.

The industrial development of a country depends **partly on the state of its natural resources, partly on its geographical situation and physical characteristics, partly on political advantages or disadvantages, and partly on its manufacturing capacity.** England's present commerical prosperity has been founded partly on her natural wealth of coal, iron, chinaclay, and other raw meterials for manufacture ; partly on her position as the great carrying power of the world ; and partly on the inventive genius of her artisans, which gave her the start of other countries in mechanical industry. In natural resources and physical and geographical advantages, India is certainly very richly endowed. Politically, India is a partner in the great British Empire —a position which secures for her at least the internal peace, justice

and settled government which are the foundation stones of all commercial prosperity. It is, chiefly, in her position as a manufacturing country that India has lost ground in the last two centuries. Now, I do not propose to make more than a passing allusion to the exploitation of the natural resources of India, because, in the first place, it is a subject large enough in itself, and secondly, because the ways and means of it are not so much the subject of controversy as other questions are. Progress in this direction will always be slow until scientific and technical education in this country have advanced beyond the theoretic smattering required for academic degrees into the higher plane of sure and practical knowledge, which is generally only reached after academic distinctions are won, and until some means have been discovered to make the field more attractive to private enterprise and capital than it is at present. A great difficulty, no doubt, is that native capital generally finds highly profitable and safe investments in long-established, traditional grooves, from which it is loath to depart for the less known and less certain ways of modern scientific exploitation. I would only venture to observe that the self-reliant character of Englishmen and the traditional policy of England perhaps inclines us to expect too much of private interprise in India. Private enterprise in this country has not yet acquired the same robust and independent constitution as it has in Europe or in the great English colonies. Neither has the glowing prospects of the Company-promoter quite the same power of attracting capital in India as it has in London and other great financial centres. The recognition of these conditions may be seen in the guarantees for Railways and other means by which the paternal Government tries to put more heart into the timid Indian investor ; but when we observed the much more strenuous official support which is given to private enterprise in most European countries and in America, I venture to think it would be well for India if we departed a little more from our traditional policy in this matter.

I will pass over geographical, physical and political aspects of the question, and come to the main point I wish to deal with, namely, the *development of the manufacturing capacity of India.* We know that in former times this country held a commanding position in the textile industries of the world. India not only supplied all her own wants in textiles, but had a very flourishing export trade. We know also that India has lost that position through improvements made in textile apparatus and machinery by European weavers, above all, by the application of steam-power to textile manufacture.

Development of the manufacturing capacity of India: a great fallacy exploded.

Now, I have continually noticed that the moral which most people draw from the history of the development of European manufactures is that if India is to regain its position as a great manufacturing country,

it must follow in the footsteps of European industry, revolutionise the working conditions of its traditional handicrafts, turn the village workshops into steam factories, and give up hand labour for mechnical power. They start on the assumption that India's salvation depends on her artizans joining in the great competition for export markets, which is going on in Europe and America. They take it for granted that processes which have become necessary in Europe must be necessary in India, where totally different conditions prevail. If these two assumptions were correct, I fear the prospect for India would not be very bright. I think no friend of India could view with unconcern the prospect of a coming era of congested cities and depopulated rural districts, of unhealthy conditions of work, of struggles between capital and labour, uneven distribution of wealth, social unrest, and all the attendant evils of the great industrial development in Europe and America. Besides, the Indian artizan is unfitted both by disposition and habits from entering upon such a struggle, and generations must elapse before he could acquire, not only the technical knowledge, but the business methods and business capacity necessary for success in an industrial struggle in European markets. The Japanese, on the other hand, who seem to be preparing to compete in European markets with European methods, are far better equipped in all respects than Indian artisan. They are more self-reliant, they have generally much greater technical skill, greater capacity for adapting themselves to different methods of work, more enterprise and determination. I venture to prophesy that unless India rouses herself to greater efforts in industrial improvement, she will find Japan a more formidable commercial and industrial competitor than either Europe or America. China, too, if she should one day wake from her long sleep, could put into the field an army of highly skilled, patient, industrious workmen which could deafeat the Indian artisan at almost every point.

The idea that the handicraftsmen of India must look abroad to foreign markets, the requirements of which they are totally ignorant of, when there are over 300,000,000 customers at their own doors whose wants they know and understand, seems to me altogether illogical. First, let them struggle to recover the home markets they have lost. If they succeed in that, they may possibly acquire the skill and knowledge necessary for attempting the other. If they do not succeed in one enterprise, in which all the advantages are on their side, is it likely they will win in another in which they will have to face every disadvantage? But, you may ask, is it possible that Indian workmen can stand against foreign competition without copying foreign methods of trade and manufacture? That is one of those questions which cannot be answered by a simple 'yes' or 'no.' It depends upon circumstances. But I will assert this, that those who believe that hand labour in manufacture is becoming a thing of the past are entertaining a delusion fatal to real progress in India. Nowhere in the world is there

a more splendid field for the development of hand industries than there is in India. If the same amount of thought, enterprise and capital had been spent during the last 50 years in developing the handicrafts of India, as have been spent in establishing mills and factories in the European system, I do not hesitate to affirm that India would have been richer by crores and crores of rupees, and we should hear little to-day of the decline of Indian industries.

Hand manufactures can be developed and improved quite as much as mechanical industry. A country, like India, which possesses hundreds of thousands of skilled handicraftsmen, and where the cost of living is many times, cheaper than it is in Europe, possesses a source of potential wealth capable of almost indefinite expansion.

It is the most suicidal and fatuous policy to assume that the skilled Indian handicraftsman must be turned into a cooly mending a machine. Yet this is the policy which many people seriously put forward as the only means of reviving Indian industry.

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METHODS OF TRAINING OF YOUTHS IN ANCIENT INDIA—VI.

[*Continued from page* 132, *Vol. V.*]

In the seventh century A.D. the influence of Buddhism reached its culminating point, and though during that period the ancient Vedic methods of teaching were becoming less and less prevalent, we have already shown that they were not entirely superseded. One thing that strikes us is that during these days of the high water-mark of Buddhist influence in India, Vedic literature and other ancient Hindu books continued to be taught in even the most important of schools of Buddhist India. For, equally with the Buddhistic scriptures, many books of sacred Hindu literature were taught in that most important Buddhist seminary, the Sangharama of Nalanda We give below what Houen Tsang has related of the above institution which he saw with his own eyes:—

"The Sangharamas of India are counted by myriads, but this is the most remarkable for grandeur and height. The priests belonging to the convent or strangers (residing therein) always reach to the number of 10,000 who all study the great vehicle and also (the works belonging to) the eighteen sects; and not only so but even ordinary works such as the Vedas and other books, the Hetuvidya,

Sabdavidya, the Chikitsavidya, the works on Magic (Atharva Veda), the Sankhya; besides these they thoroughly investigate 'miscellaneous' works."

[From Samuel Beal's Life of Houen Tsang.]

We have already seen that with a view to undermine the very foundations of the Hindu *Sa*stras and Hindu Religion, the Buddhist sacred books, full of Prakrit Pali, were, ever since the days of Sakya Sinha, spreading their influence more and more with such vigour that they soon became prevalent from one end of India to the other. But still, unable to do without the Hindu Sastras and Hindu Religion, the leaders of Buddhism in the 7th century A.D. magnanimously made the Hindu sacred works, such as the Vedas, Ayurveda, Vyakarana, Sankhya, &c., parts of the curriculum of studies in the most important of their educational institutions, without, it seems, much hesitation. It is not, however, the object of this discourse to show why this state of things came into existence; why the Hindu Religion and *Sa*stras gained some influence over the minds of the Buddhist leaders. We hope, however, to be able to discuss this question in a separate article.

We have already shown by quotations from the sayings of the Rishis, the authors of Samhitas, how before the rise of Buddhism in India, Indian students, during their stay at their Preceptor's house, lived upon what the accidental hand of charity gave them, how every householder thought himself fulfilling the ends of his own existence by respectfully giving a part of his own food to such seekers of alms. In those good old days, it was considered a serious punishment for some grave sin committed in some past birth, to be deprived of the honoured privilege of putting alms into the hands of such seekers after learning. And it was a matter of great pride to the young learners to thus spend a long time in the house of their Preceptor, living solely upon the proceeds of charity. But during the palmy days of Buddhism, this sacred occupation of begging adopted by the whole class of seekers after learning was fast dying out. From what we learn from Houen Tsang's account of the great institution of N*a*landa of the seventh century A.D., it is clear that students had totally given up the beggar's way of life.

According to Houen Tsang, not less than 10,000 students resided in the University premises of N*a*landa. About a hundred villages were set apart for their maintenance. Out of the income of these villages were provided the food and clothing of the student; while, besides this, the rich folk of the neighbouring villages and towns daily sent

supplies of rice, curd, vegetables, milk, clarified butter, &c., to the institution for the use of the students. The Buddhist kings spent immense wealth upon the advancement of learning; and the splendid, sky-reaching mansions for the use of students resounded with the echoes of gladness of student life, so full of cheerfulness, enthusiasm, purity and sweetness. From the remotest countries came almost daily reputed scholars either to make an exhibition of their learning; or with a view to further studies entered the college of Nalanda with genuine emotions of awe, wonder and exultation. Almost daily in the spacious hall of the institution the teachers and professors mature in age and wisdom mixed with hundreds of quick-witted students with a thirst for knowledge and gravely and quietly discoursed with a good deal of scholarship upon such topics as soul, after-life, समाधि, or self-lost communion, the means of salvation, philosophy and medicine.

A few years after the attainment of Enlightenment by Buddha deva, some king of a district in the vicinity of Rajgriha first began the foundation of the institution of Nalanda. Mr. Cunningham has supposed the famous village of Baragaon seven miles north of Rajgriha as the remnants of the ruins of Nalanda. King Sakraditya, having selected a very large plot of ground there, built on it a college for the spread of Buddhism, enclosed within four walls. After his death his son, Buddha Guptaraj, ascended the throne and addressed himself to the task of improving the above institution founded by his father. He added another building within the large walls towards the south. After his death his son, Tathagata Guptaraj, following in the footsteps of his father and grandfather, resolved to enhance the glory of the great educational institution and added another building in the east of the main premises.

The son of Tathagata Guptaraj (Baladityaraj) also, on coming to the throne, followed the example of his ancestors. His reign saw the establishment of another large Sangharam in the north-east corner; and on the day of its foundation thousands of invited Buddhist travellers assembled together from the extreme limits of India. About this time the fame of the institution of Nalanda pierced the bounds of India and reached to China. Buladityaraj, living in constant intercourse the great learned old Buddhist scholars gradually began to feel no attractions for the world, and soon chose to renounce his royalty, spending the rest of his life within the premises of Nalanda in pursuit of knowledge.

We next learn that a powerful king of Central India spent a large sum of money on the addition of another very large wing to the College premises of Nalanda.

The result was the great educational centre of Nalanda drew the attention of the whole of India at that time as would more fully appear from the following extracts from the Houen Tsang who has left us some detailed an account of the condition of the teachers and the scholars in the University of Nalanda.

"The priests to the number of several thousands are men of the highest ability and talent. Their distinction is very great at present time and there are many hundreds whose fame has rapidly spread through distant regions. Their conduct is pure and unblameable. They follow in sincerity the precepts of the moral law. The rules of this convent are severe and all the priests are bound to observe them. The countries of India respect them and follow them. The day is not sufficient for asking and answering profound questions; from morning till night, they engage in discussion; the old and young mutually help one another."

[S. Beal's Records of Western Countries.]

PRAMATHANATH TARKABHUSHAN.

VEGETARIANISM AND VIGOUR.

Often after a lecture or in the course of conversation the question is asked of me:—"But shall I not become weak if I stop eating meat?" The answer is:—"No more than the habitual tippler will become weak if he stops taking alcohol." Both flesh meat and alcohol make one feel stronger. *But to feel stronger is not necessarily to be stronger.* There are many millions of strong, healthy, hard-working and long-lived people who never touch meat. The Mandingo tribes of Senegambia are among the fiercest and most warlike of savage peoples. They are strictly vegetarian. The Andean Indian upon a diet of bananas clambers over the mountains all day, bearing upon his back a chair in which is seated a meat-eating tourist. Other South American natives upon a diet consisting mainly of bananas do an amount of work equal to four hundred foot tons a day, or nearly twice the work of an ordinary labourer.

The burliest and bravest soldiers of the German army and the finest sailors of the Hamburg navy are recruited from the Bauern of Schleswig-Holstein, who never touch flesh meat. Sir Edwin Arnold asserts that the strongest men he ever saw were the soldiers of an Indian regiment, the Mahratta Brahman of the Third Bombay cavalry, who had all their lives eaten pulse (that is, the legumes—peas, bean and lentils) and cakes.

Among the Hindoos it is only by the lowest classes that flesh meat is used for food. The higher classes of the Hindoos are usually tall, strong, enduring and graceful. They subsist entirely upon vegetable products. Regarding their intelligence and refinement, none with any knowledge of

their wonderful literature and their genius for philosophic thought can raise any question.

During the heroic periods of Greek and Roman history the food of the soldiers was entirely vegetarian. The Greek athletes were trained upon vegetarian diet. The three Hebrew children chose rather to live upon pulse than to dine at the King's table. Their healthful condition and their rare powers were not, as some devout people believe, a miracle, but resulted from a profound knowledge of the natural laws of body and mind.

To-day in the athletic world it is being tardily recognized that meat is not a "strong" food but is a very "weak" food, indeed. In a recent long distance walking match the winner and the three finishing next were vegetarians, while the seven meat eaters came in a batch hours later. In the last six day bicycle races held in New York city the winner and the second man to finish ate no meat during the contest.

Still more recently another champion cyclist, Will. H. Brown, of Valley Stream, L. I., broke all records by riding 2,000 miles in a little over 225 hours. About three years ago Brown, who had then been for some time out of health, was examined by several physicians, who diagnosed tuberculosis, and told Mr. Brown that he had but a short time to live. About this time he became a convert to vegetarianism, and since then has eaten no meat. During his recent ride his diet consisted of rice, strawberries, prepared food, milk, ice-cream and cocoa. This dietary, while an improvement upon the usual food of athletes, in some important respects, is one of which no hygienist could approve. The rice was an excellent food, supplying the starchy elements in a pure and digestible form. The strawberries supplied levulose, or fruit sugar, and certain important salts. The cocoa was simply a stimulant. The milk, under any circumstances, would have been of questionable value.

Milk is an excellent article of food—for adolescent calves and babies. It is, however, totally unfit for the nourishment of adults. In the first place, it is a liquid, and food for the adult human being should be solid. Then, milk is a very unstable chemical compound, and is readily decomposed by heat, electricity, agitation, &c. In the stomach, milk finds just the conditions (warmth, moisture and agitation) most conducive to decomposition. Moreover, milk has a peculiar power of absorbing poisonous gases, &c. Then, in the various processes of milking and handling, the milk is liable to be infected through sore nipples of the cow, uncleansed receptacles, pails, cans, bottles, dippers, from the swishing tail of the cow, from the unclean hands of milkers, and so on. To all these dangers must be added the chance of the milk being drawn from a creature, herself diseased. Boiling or sterilizing will destroy certain of the universally feared germs in the milk, but have no effect in preventing other chemical changes by which it becomes injurious. By the process of boiling or sterilizing, however, the nutritive

value of the milk is greatly lowered through the destruction of the chemical relations between the albuminates of the milk and the mineral salts. So, although milk contains in itself the proper elements for human food in about the proper proportion, it is far from being a perfect or even a safe food.

All the objections to milk apply with equal force to ice-cream. In addition to those, the sugar of the ice-cream at once ferments in the stomach, and the extreme cold of the ice cream not only temporarily paralyzes the gastric function, but the task or warming an ordinary "portion" of ice cream (say, one-half pound) from 32 degrees Fahrenheit to the temperature of the body, 98.6 degrees Fahrenheit, tends to deplete the vital force.

But Brown's diet during his ride, while very far from being scientific, contained several raw foods, thus insuring the presence of the salts which are always either eliminated or altered by cooking, and was practically free from uric-acid-containing substances. The formation of uric acid is causative, or at least co-existent, with fatigue; hence the practical value to the athlete or worker of substances free from uric acid.

Another athletic achievement which should cause meat-eaters to stop and think is the remarkable ride of a woman aspirant for cycling honors who recently finished a thousand mile road ride in the remarkable time of 112 hours and 23 minutes. During the ride the woman gained two pounds in weight. She finished in splendid condition, with no more sign of fatigue than after a ten-mile spin. By this feat of endurance, Miss Margarita Gast became champion woman cyclist of the world.

Miss Gast while riding ate six meals in twenty-four hours, alternately a heavy and light meal. The dinner meals consisted of strawberris, oranges, raw new potatoes and unbuttered swieback; the light meals of srtawberries, bananas and green peas. Sometimes a little claret was allowed or small pieces of ice. Tea was given, and to overcome drowsiness ammonia in water was administered occasionally.

In this dietary, the fresh green peas, the bananas, strawberries, oranges and other fruite, also the unbuttered swieback, were correct. The raw potatoes were unhygienic, for the starch of the raw potato is not digestible in the human stomach. The claret and the tea were slightly stimulating, as was also the ammonia.

So it will be seen that, although both these dietaries were incorrect from a scientific standpoint, still they were so much better than the ordinary diet that the notoble results achieved may be traced directly to them.

Competition in athletics is dangerous, and is to be deplored. Racing of all kinds, and particularly long distance contests, are injurious to the

participants, and anything but elevating to the spectators. But, however reprehensible the events in themselves, they may teach us a lesson.

And the lesson taught by these four champion cyclists, all vegetarians, is clear. They have proven, each to himself and to all who study the result of their methods, that under a non-flesh dietary, a higher degree of strength and endurance may be attained than upon a mixed dietary. And however insignificant the incidents in themselves, they prove that in spite of widespread usage and prejudice, flesh meat is not essential to the highest degree of physical vigour.

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THE SPHERE OF RELIGION.

The conception of religion is the most complex problem that is offered to men to solve. It is as complex as life itself. Did preachers of religion and writers of theological works know the various and diversified ramifications of religion, much needless controversy which takes the form of religious zeal would cease. For, in fact, the various doctrines and dogmas that divide and disunite the religious propagandists are the inevitable results of a narrow, sectarian spirit, arising from an imperfect conception of the object and sphere of religion. There are as many ways of viewing an object as the relations of the subjects to it. The same is the case with regard to the conception of God. This may be illustrated by an astronomical fact. Astronomers have discovered what are known as *fixed* stars. They are so called because they remain at fixed distances from one another, the distance between *any two* of them remaining fixed at all times; and it is by reference to these fixed stars that astronomers have found that the Sun changes its position among the whole system of fixed stars from day to day. Now it is also found that to different observers taking their stand on different parts of the globe a fixed star would not seem to be at the same distance, nor in the same direction. The distance and direction would be different in the case of *different* observers. It would be a foolishness for one astronomer standing at one point (say, Calcutta) to say to another astronomer standing at another point (say, London),—"your calculations are wrong, because they do not agree with mine." We know that both of them are right in their calculations and their apparent differences of opinion arise from looking at the stars from observatories in different parts of the globe,—from different view-points

in fact. The same applies *mutatis mutandis* to so-called religious creeds and dogmas. Just as the astronomers, in order to get rid of their apparent differences in calculation, take what is called the *parallax* of the star (*i.e.*, refer the direction and distance to a given fixed point, *e. g.*, the centre of the earth, which is, *fixed*); so also theologians should make allowance for the differences in their view-points; they should try to obtain the parrallax, as it were, of their religious opinions by referring them to an one fixed common, unchanging standard. Theologians, however, on the contrary, allow themselves to be dominated by one or other of the various stand-points or view-points of religion and see things in their wrong proportions. Thus, some look at religion (or God) from the stand-point of philosophy (like Mill or Martineau); some from that of science (like some of our modern scientists); others view it through the spectacles of national politics (like, it is suspected, some of our Christian Missionaries, specially the apostles of Imperial Christianity); others, again, study it from other points of view of anthropology, sociology and so forth; while the vast majority interpret religion in the light of their worldly profit or loss. In truth, religion is exclusively neither philosophy, nor science, nor ethics, nor politics, not necessarily a church creed or dogma, but it involves and implies a harmonious in-fitting of all these elements, requiring a foresight and skill in adjustment of relations which is possible only to the Providence of the Almighty. Religion is such a comprehensive thing that a man who is religious, in the best and truest sense of the word, the man who has, through all the manifold gradations of spiritual discipline, reached the highest heights of life, rending the veil of all existence, self and the universe;—such a man, we say, for he may be said, indeed, to have *discovered for himself* the Truth, is *ex-hypothesi* a philosopher, without-studying books of philosophy; is a scientist, without working at a laboratory richly furnished with all the latest modern appliances; is a statesman, without studying history and politics; is botanist, geologist and astronomer, without studying either botany, geology or astronomy. For *him*, the truth stands revealed;—the whole book of Nature, inner and outer, subjective and objective, stands unrolled in its entirety. The powers of *such* a man are infinite; while those of the more student, the mere apprentince in religious life are supremely limited. The former has reached a view-point from which he can gaze and observe and detect the play of forces, inner and outer. For he observes with his senses, mind, and intellect unclouded or unobscured by the limitations of perspective, unobscured by illusery enchantments, by a spurious regard for trifles. *Such* a man, we say, *looks with his soul*, the eyes of his

inmost self—his spirit whose exalted heights he has reached through the manifold and ascending steps of spiritual discipline. A true conception of religion—of real religious or spiritual life involves and implies as its very essence, goal or limit, *all* knowledge, *all* life, *all* bliss. There is a very good saying in Hindi: "Parhna likna manka; oam bhajle sadhu Sitaram." In other words;—learning is a property of the mind alone, say ye *Sitram*, *i.e.*, take the name of God, and all is said; for, in the vocabulary of the saints, the knowledge of God is identical with *all* knowledge; or inversely. *all* knowledge is possible only to the knower of God, the knower of Brahman, the knower of the Truth. This is a highly useful lesson to those amongst us who think of solving religious problems simply by *reasoning*. It is as impossible to attain to a knowledge of God, to the heights of God-discovery, by mere intellectual labour,—as it is for a camel to go through the eye of a needle. Our eyes must be turned upwards, away, away from the things of worldly life, things of the lower mind before everything could at all be achieved in the matter of religion. This attitude towards things, upwards, higher, nobler, loftier, has very well been described by Tennyson in his *In Memoriam*:—

> "Let knowledge grow from more to more,
> "But more of reverence in us dwell;
> "That mind and soul according well,
> "May make one music as before,
> "But vaster."

And to crown all—and sum up what we have been attempting to explain, Tennyson has in the following immortal lines from his "The Princess" shown, with the help of his vision and faculty divine, that the highest heights of life,—of our very being, being scaled, the difficulties of attainment of knowledge with the aid of the limited powers of the mind cease; for we are *then* ushered into a new state, a state of unlimitedness, of infinitude of the soul—which is the *final* result of all religious life, the state in which God, or Brahman, or the Truth (for the three names represent but *one* Reality, *one* Fact) stands revealed as like an open page.

> "For was, and is, and will be, are but is;
> "And creation is one act at once,
> "The birth of light; *but we that are not all*
> "*As parts, can see but parts, now this, now that,*
> "*And live perforce from thought to thought, and make*
> "*One act, a phantom of succession, thus*
> "*Our weakness* somehow shapes the shadow, time"

ANONYMOUS, M.A.

HISTORY OF INDIAN GRAMMATICAL LITERATURE.—II.

[*Concluded from page 189, Vol. V.*]

Section II.—Sanskrit Grammars not included in Vopadeva's List.

Besides the eight schools mentioned by Vopadeva in the 12th century A. D., there are many treatises on Sanskrit grammar which cannot be brought under any of the schools.

Perhaps the most ancient system of grammar is the *Pratisakhya* attached to and forming an *anga* (limb of each of the Vedas. Referring to the Rig-veda-pr*a*tis*a*khya, Dr. Burnell says "of all the grammatical treatises in Sanskrit that we possess this remarkable work bears every sign of being a primitive treatise." Professor Goldstucker however took a different view, and held that "this Pr*a*tis*a*kya is posterior to P*a*nini."

(*a*). The Rig Veda-Pr*a*tis*a*khya is attributed to Saunaka.

(*b*). There are the Taittiriya Pr*a*tis*a*khya of the Black Yajurveda, and the V*a*jasaneyi Pr*a*tis*a*khya of the White Yajurveda.

(*c*). We also find *S*aunakiya Ch*a*tur*a*dhy*a*yik*a* of the Atharvaveda.

The Pr*a*tis*a*khya grammars show that the advance made by linguistic research during the Vedic period was very considerable It was for fixing the text of the prayers as well as for a proper pronunciation and recitation of words that certain rules were laid down which gave rise to the Vedic grammar called Pr*a*tis*a*khya.

We may also notice the grammars called the Phits*u*tra by *S*antanava and Jat*a*patala by Vy*a*di.

Katantra or *Kalapa-Vyākaranan* ranks next to P*a*nini in importance. It was probably written in the 3rd century B. C. The author's name is *S*arvavarman. There is a *Vritti* (on the Kal*a*pa sutras) by Durgasinha. He also wrote a *tika* on his own *Vritti*. The *Katantra-vrtti-panjika* by Trilochana Dasa is also well-known, Durgasinha who was a Buddhists pays obeisance to Buddha in the opening lines of his *Vritti* thus:—

देवदेवं प्रणम्यादौ सर्वज्ञं सर्वदर्शिनं ।
कातन्त्रस्य प्रवक्ष्यामि व्याख्यानं शार्ववर्मिकम् ॥

"After having first bowed down to the omniscient and all-seeing Lord of Lords, I shall set forth the explanation of K*a*tantra of *S*arvavarma."

In the beginning of his V*r*itti-tik*a* too, Durgasinha offers salutation to Buddha as follows:—

शिवमेकमजं बुद्धमर्हदग्र्यं स्वयम्भुवं ।
कातन्त्रवृत्तिटीकेयं नत्वा दुर्गेण रच्यते ॥

'After offering salultation to Buddha, the blessed, incomparable, unborn, foremost of the venerable and self-existent, Durga proceeds to compile this K*a*tantra-V*r*itti-*t*ik*a*."

Most of the writers of commentary on the K*a*tantra grammar were Buddhists, but it is not known to what religion did *S*arva-varma, the author of the original s*u*tras belong. K*a*tantra grammar is, however, greatly respected by all Buddhist people and has been carefully preserved in Tibet.

The *Unadi* and *Krit sutras* belonging to the K*a*tantra grammar were added by K*a*ty*a*yana. Thus, in the beginning of the chapter on *Krit*, we find:—

वृक्षादिवदमी रूढ़ाः कृतिना न कृताः कृतः ।
कात्यायनेन ते सृष्टा विबुद्धिप्रतिबुद्धये ॥

"These *Krit* suffixes (including the *unadi*) have grown in the manner of trees &t.; they have not been created by the doer (God or Sarvavarma); for the enlightenment of ignorant people, K*a*ty*a*yana has made them."

Mugdhabodha Vyakarana—by Vopadeva was written in the 12th century A. D.

Sarasvata-Vyakarana was probably written in the 13th century A. D.

Sanksipta-Sara by Kramadis*v*ara belongs probably to the 15th century A. D.

Supadma by Padman*u*bhadatta probably belongs to the 16th century.

Pa*n*ini has mentioned the names of several grammarians who flourished before him; such as, Apisali, G*a*rgya, G*a*lava, *S*akravarma*n*a, Panskaras*adi*, *S*ak*a*t*a*yana, *S*akalya, *S*aunaka, and Spho*t*ayana.

Section III:—Pali Grammar.

Kachch*a*yana (K*a*tyayana) is reputed to be the author of the first Pali grammar called Susandhikappa. Kachch*a*yana grammar, as we have

it, is traditionally known to be the production of different hands. In the Kachch*a*yanabheda-tika we find:—

काच्चायनकतो योगो
वुत्तिच सङ्घनन्दिनो ।
पयोगो ब्रह्मदत्तेन
न्यासो विमलबुद्धिना ॥

"The *Yoga* (*sutra*) was written by Kachch*a*yana, the commentary by Sanghanandi, the examples were added by Brahmadatta and the gloss, by Vimalabuddhi."

From the manner in which the *sutta*, *vutti*, *payoga* and *nyasa* are intimately connected with one another, I am inclined to believe that the entire work was written by K*a*tyayana himself. At any rate the sutta, &c., were written simultaneously.

Mr. D'Alwis considers that Panini's Sanskrit grammar was the source of K*a*chch*a*yana's book. There are, however, several suttas in Kachch*a*yana which are almost identical with those of the K*a*tantra. Dr. Burnell is of opinion that both Kachch*a*yana and the K*a*tantra have borrowed most of their technical terms and many of their suttas from the Aindra grammar.

Nothing is known to us about the life of Kachch*a*yana. We are quite in the dark about the age in which he flourished and the country in which he lived.

The difficulty, that Gautama's hearers found in understanding the language in which he preached, is represented as the occasion of the formation of the first Pali grammar. When people complained of not being able to understand the meaning of Gautama's discourses, Kachch*a*yana, one of his favourite disciples, after meditating on the subject came before his associates with the proposition that subsequently became the first aphorism of his grammar. If we accept the view mentioned here, Kachch*a*yana, the author of the first Pali grammar, must have lived in the 6th century before the Christian era. Kachch*a*yana grammar was, it is said, preserved by oral tradition for 450 years after the death of Gautama when with the sacred books it was committed to writing in Ceylon in the first century B. C. The book is said to have been carried to Burma by Buddhaghosa in 387 A. D., and the Burmese translation and commentary are ascribed to him.

Some scholars have on the authority of the Kath*a*saritsa*g*ara identified Kachch*a*yana (K*a*ty*a*yana) with Vararuchi who was one of the nine gems of the court of Vikram*a*ditya in the first century B. C.

K*a*ty*a*yana who added the chapter on *Krit* and *unadi* to the K*a*tantra grammar of *S*arvavarma is, I believe, the same person who compiled the first Pali grammar. It is, however, doubtful whether he is the same K*a*tyayana who wrote *vartika* on the Sanskrit grammar of Pa*n*ini.

The *sutra* 1—1—9 of the Pali grammar of Kachch*a*yana pre-supposes the existence of Sanskrit grammars. Kachch*a*yana directly mentions Upagupta and Dev*a*nampiya Tissa in the examples of the 11th *sutra* of the chapter on K*a*raka and in the 5th *sutra* of the 5th Ka*nda* of the n*a*makappa respectively:—

(*a*) उपगुत्तेन बन्धो मारो। (*b*) क गतोसि त्वं देवानम्पिय तिस्स॥

Now Upagupta and Dev*a*nampiya Tissa were both contemporaries of Asoka about 250 B. C. From these examples we can fairly conclude that Kachch*a*yana flourished after 250 B. C.

I think that Math*u*r*a* was the birth-place and residence of Kachch*a*yana. Among the examples of the 5th *sutra* of the chapter on K*a*raka we find :—

इतो मधुराय चतूसु योजनेसु सङ्कस्सनगरं अत्थि तत्थ बहुजना वसन्ति॥

"From this place, *viz.*, Mathura, a distance of four *yojanas* (about 15 miles) there is a town called Sa*n*k*a*sya ; many people live there."

We know from Divy*a*vad*a*na that Upagupta was also a native of Mathura. As Chandrak*i*rti in his M*a*dhyamik*a* Vritti mentions K*a*tyayana we must conclude that the latter lived before the 2nd century A. D.

Besides Kachch*a*yana's grammar there are several grammatical treatises in Pali; such as, 1. Saddan*i*ti, 2. R*u*pasiddhi, 3. Ch*u*lan*i*ti, 4. Payogasiddhi, 5. B*a*lavat*a*ra, 6. *A*khyat*a*pada, 7. Dh*a*tuma*n*jus*a*, 8. Moggall*a*na-Vy*a*kara*n*a (1153-1186 A. D.)

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SRI-CHAITANYA AND HIS MESSAGE.—VI.

[*Continued from page 119, Vol. V.*]

NIMAI—THE GRIHI.

From an ardent student, Nimai became a professor. He established a *Tole* or Sanskrit boarding institution on his own responsibility in the capacious Chandimandap of his neighbour Mukundasanjai, a wealthy Brahman. The young professor was then only 16 years of age, and so far, the opening of an academy by a person so young was unprecedented. It is strange, therefore, that a short time, Nimai's academy became a prosperous institution—a regular intellectual bee-hive.

In Nimai's case and on the hypothesis that He was nothing more than a man, providential dispensation must have been unique. He was everything, boy, student and professor, before this time; a sort of seed which magic makes sprout, grow into a plant, blossom and fructify within the compass of a few minutes. It was not merely the premature development of a precocious child which generally disappoints in after-life the promises of youth and ends at best but in dilettantism. Nimai at once took his stand among those who stood highest in learning at the time and in those days, Nadiya possessed some of the greatest intellectual giants the world has ever seen. As we have previously pointed out, much of the learning of the period consisted of scholastic controversies. Into this vortex of controversial wrangling, and intellectual gymnastics, Nimai threw himself with the greatest zest. No one, howmuchsoever might be his fame in learning and seniority in age, was secure from his keen and sharp-pointed thrusts. Whenever he met any pandit in the streets or at the bathing ghat, Nimai would at once open issues with him and ply him with questions until his adversary was thoroughly discomfited. Nimai, though gravity itself in his *Tole*, was a rather flippant and giddy-headed youth outside. His high-handedness in all places of public resort was a constant subject of remark by the people. Though His father and father's father hailed from East Bengal, it gave Nimai the greatest pleasure to mimick the Sylhet-people by talking in their East Bengal parlance.

Even before Nimai, a new spirit and vigour had been imparted to Vaishnavism by the great sage Madhabendra Puri. At Nadiya, at this time there was a very small number of very devoted Vaishnavas who were often persecuted by the other people. They met in the house of a Adwaita *Acharyya*, the sage of Santipur, who was a disciple of Madhabendra Puri, and there passed their time in prayer. They were naturally a very mild class of people, and though many of them such as Murari Gupta and Sribasa *Acharyya* were very learned Pandits, they fought shy of all sorts of controversy. Hence they tried to avoid meeting Nimai Pandit in any public place, but Nimai seemed to enjoy a particular pleasure in teasing these men, who in after-life were to be the most devoted of his friends and followers.

Being charmed with his splendid appearance and extraordinary learning, they became very sorry that such a magnificent intelligence was frittering away his energies in mere scholastic disquisitions. Some of them even made bold to advise him on the vanity and uselessness of mere learning and asked him to devote himself to the worship of the Lord *Sri*-Krishna, leaving aside his arrogance and pride.

Nimai was quite an object of terror to an inhabitant of Chittagong, named Mukunda Dutta. Apart from being a native of East Bengal, Mukunda had the misfortune of being a Vaishnav. This Mukunda was dear to the heart of all the Vaishnavas His extraordinary powers of singing charmed every soul and melted the most obdurate of hearts. Poor Mukunda avoided Nimai as much as he could, but the latter would be ever thrusting himself on him. Nimai made a similar laughing stock of one Gadadhar Meivea, an unassuming sort of person who, though a bit of a logician preferred to walk in the path of Bhakti. Nimai would thrust controversial theology on poor Gadadhar and take delight in his humiliation.

In the meantime, *Sachi* was seriously contemplating Nimai's marriage. At last she fixed upon Lakshmi, the daughter of a learned Brahman, named Ballav *Acharyya*, residing in Nadiya itself as her future daughter-in-law and accordingly all preparations were made to celebrate the ceremony. *Sachi*'s house wore, for the nonce, a gala-day appearance. It had never done so since Jagannath's death. The girl was a paragon of beauty; and in good conduct, a veritable Lakshmi, worthy of him in every way as he was of her, and a lovely couple they proved in *Sachi*'s eyes. She forgot her old sorrows and basked in the sunshine of Nimai's smiles.

It was at this time that one Isvara Puri, a disciple of the famous Madhubendra Puri, visited Nadya. Isvara Puri was a staunch Bhakta, and wrote a drama delineating *Sri*-Radha's love for Krishna, which he used to recite daily before a few select friends: Nimai attended the recitations and attracted the notice of the great devotee. Isvara Puri perceived in Nimai not mere academic excellence but the indication of a perfect Yogi and was very glad at heart. It is told by his chroniclers that shortly after his coming in contact with Isvara Puri, Nimai commenced to exhibit what are called the Bhabas (higher spiritual external manifestations).

He laughed and cried, swooned and danced, to the great consternation of his mother, who called in elderly people for giving her the necessary counsel. Nimai's case was pronounced to be what is called Vayu-Roga *i.e.*, the first stage of dementia; and, as fate would have it, Vishnu oil was prescribed for him for external application. Nimai got round in a short time, but to humour his mother he continued to use the oil for some time.

It was a short time after this that He thought of touring in the Eastern Districts of Bengal and the native place of his forefathers. *Sachi* would

not signify his assent to it, but she was prevailed upon to give a passive consent. With a few followers, Nimai crossed the Padma and commenced preaching Harinama,—the sweet name of Hari (God). Hari is not an idolatrous term. He who ravishes our ill luck, our evil thoughts, aye, our evil doings—He it is who is Hari. So far the ground is clear. The sceptic may ask, what's in a name? Our humble answer is—much. We can know nothing of the First Cause except the name we choose to call It by: In this view theology is nothing more than Nomology. Far better Nomology, than no Logy at all. An affectionate mother delights to call her son by his name, and the latter responds. So it is with the wordly relations. A lady-love is simply charmed to hear her name uttered by the sweet-heart. I am not going to inflict upon the reader the old metaphysical controversy of Nominalism *vs.* Realism. The Nominalist school maintained that it was name from Alpha to Omega. Realism affirmed the thing and denounced the name. The thoughtful reader will readily consider that both the doctrines are true at the one and the same time. Destroy Nomology, whole and entire, for a while; and you will put human affairs topsy-torvy.

Taking Hari's name always does not clash with the doctrine. Take not the name of God in vain. The adjunct, *in vain*, makes all the difference; and the Neo-Visnuvitist Harinam is in no sense the taking of His name in vain. It is the fulcrum on which the Vishnuvite's life rests. It shapes his thoughts and emotions, desires and actions. Its perennial on-flow makes his life a perfect beatitude, and death a luxury. Enough of this for the present.

Nimai's was the mission of proclaiming the glorious Harinama, not to the Gentiles as Christ Jesus did, but in His own Judea, the home of his father and ancestors. Charity should begin at home, says the proverb, and Nimai acted up to it, to its very letter. And he had had plenty to recommend in him to our Bengal friends. His fame as an academician had reached East Bengal before His advent therein. The student community had read his grammar, and were delighted to see him moving in their midst.

People who would find fault with Nimai for mimicking the East Bengal intonation had better take note of the fact that he preached the gospel of Love in East Bengal first. Is it not phenomenal? Is it not of a piece with His character to tease them most whom he loved most?

While in East Bengal, one Rupan Misra met him, and told him on his knee that He was no less a person than God Himself and that he had come to know it in a vision. Nimai bit his tongue, and after raising him up, asked him to go to Benares and await his arrival there. Rapana was thereafter initiated into the mysteries of Neo-Vishnuvism. Nimai's glorious mission met with wonderful success in East Bengal. A large number of people stood firm under the banner of Harinam, and He left it in the midst of a chorus of Haribole for Navadvipa.

Nimai appears to have come back with a number of people, some of whom were bent upon becoming his spiritual disciples, while many were desirous of acquiring academic training and knowledge at His feet. On reaching home his first duty was to fall prostrate before his mother. *Sachi* wore a dismal look at the sight of Nimai and then burst into sobs. Nimai learnt the real why of it in a moment. It was the death of the young and charming Lakshmi, His spouse, who had once converted his house of mourning into one of joy. Hers was a death by snake-bite. The young flower before she could open her fragrant petals was destined to wither away and there ended the matter. Nimai was much moved at the

thought that she was no more—shed a few hot tears over her sweet memory and wound up by saying that. "It is a lucky woman who can leave behind her husband and go to another world."

(Late) BULLORAM MULLICK,
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INFANT MARRIAGE *versus* DEFERRED MARRIAGE: QUESTION OF LEGISLATIVE REMEDY.—IV.

[*Continued from page 181, Vol. V.*].

HARDSHIPS OF INDIAN WIDOWS *versus* THE HARDSHIPS OF THE BRITISH ADULT UNMARRIED CLASS.

Nor could we complain of infant-marriage, because of the many child-widows we find in the land. Infant-marriage and enforced widowhood have no necessary connection. There is nothing in the nature of infant-marriage forbidding the re-marriage of widows. Infants could marry; and at the same time the widows might re-marry. But even supposing that the one were a necessary consequence of the other, are we quite sure that infant-marriage produces in this respect greater hardships than late marriage? Facts, stubborn facts, which are a surer guide than mere sentiment, seem to point to the very opposite conclusion. According to Mr. Bourdillon's Census Report of Bengal, where we have the largest number of infant-marriages, 49 percentage of the female population are married, the widowed and the unmarried making up the remaining 51. That is, in other words, of every 100 females, 49 have got their husbands. Contrast this percentage of married population with the percentage of the same in other countries where late marriages prevail. According to Mr. Bourdillon, the percentage of married population for England is only 33·88, for Scotland 28·71, and for Ireland 28·58. In other words, of every 100 females only 33 are married in England; in Scotland and Ireland only 28. If the unmarried state or the widowed state were necessarily a state of hardship, then we must admit, the hardship were the greatest in Scotland and a little less in England, as the natural effect of late marriages, and the least in India as the happy result of the institution of much reviled infant-marriage.

HINDU WIDOWS ARE THE SISTERS OF MERCY AND A NECESSARY PART OF HINDU SOCIAL ECONOMY.

But, I think, *we wrong our English and Scotch sisters, as well as our Indian sisters, by assuming that the widowed state, or the state of single blessedness is a hard state.* In nine cases out of ten, it is not so. Human nature may be sinful, but, thank God, there is also in it much of benevolence and self-denial. Have not many of our English, Scotch and American sisters consecrated their whole lives to the noble work of doing good to their neighbours, and that from the highest and purest of motives? What a glorious institution is the institution called the Sisters of Mercy! Should we not be guilty of offering the gravest insult, if you called their noble lives, lives of hardships? And you do the same wrong to the Hindu widows when you mourn over their lot as a very hard one. *The real truth is that what the Sisters of Mercy are in the bosom of the Christian Church, that the Hindu widows are in the Hindu social economy.* There is this difference

however, between the two that, whereas with the former, their life of noble self-denial is self-imposed, with the latter it is a divine call, and imposed upon them by the irreversible decree of Providence. No doubt, the law which makes perpetual widowhood compulsory, is cruel, unjust and inhuman; but the Hindu widow, in nine cases out of ten, gets reconciled to her new call, and enters upon the duties of her new life with a heart and will that will often put to shame many who make a higher profession. What first was God-imposed, soon, however, becomes with her self-imposed, and so she feels no hardship at all. Her religion very wisely enjoins upon her certain fasts and austerities and she finds a great help in them. She never regards these as hardships. And what is her whole life? It is a life of most unselfish love. What would have been Hindu homes without the widowed sisters or the widowed aunts? The Hindus are a very poor nation and most families have no servants at all, and it is the widows who, *with their loving and willing services*, preserve many a family from want, starvation or death. *They are the family physicians, the family nurses, and I may add, the domestic chaplains.* As the saying goes, the Hindus have 13 festivals in 12 months, and it is to the widows' exertions that these festivals owe their all in all. If the Hindu religion has still a strong ostensible hold even on the educated Hindus, it is througth the *good* offices, a Hindu would say, of the widows who, of all Hindus, are *real* devotees. It was a widowed aunt to whom, at an one period of my life, I was more attached than to my own mother; and one can imagine her affection to my elder brother, when I say that for years she never talked with him after he had embraced Christianity, she was so much grieved at that event; and at last left home and died a pilgrim at Brindavan. The Hindu widows have not children of their own, but they regard their brothers' children and their sisters' children as theirs; and these children find in them more than a mother's affection and reciprocate the sentiment. *The Hindu widowhood is, therefore, a necessary part of the Hindu social economy, and its hardships are not so great as outsiders imagine.*

AN APPEAL TO CHRISTIAN MISSIONARIES TO PAUSE AND CONSIDER.

But I must bring these hasty thoughts to a close with a word or two on the last two points; for, I fear, I have already exhausted the reader's patience. My object was not to recommend infant-marriage; but simply to place before him the Hindu aspect of it. If what I have stated above be true, I think Missionaries will agree with me not to make it a subject of unqualified denunciation. It has its good as well as bad features, and it will not be wise for Christian Missionaries, to take up a social question of such vital interest to the Hindu community and of such a complicated nature—a question on which from the fact of their being foreigners they cannot easily form a just and impartial opinion; and to ask Government to pass a law in accordance with their views, but opposed to the wishes and feelings of the people for whom it is intended. They got passed Act XXI of 1866, the Convert's Dissolution of Marriage Act, though the late Rev. Dr. Banerjea and many others made a vehement protest against their action. But how many of their converts have availed themselves of its provisions? I do not think they could name half a dozen cases in which the Act has been put into operation.

SEPARATION OF CHRISTIAN HUSBANDS FROM WIVES.

But I could name many more cases in my own small community where the parties married according to their own selection when they were of age, but where the husband and wife are now living separate owing to family disagreements. Missionaries will never think of a Divorce Act to meet the hardships in these cases and yet they got passed a divorce law to remove the hardships in the other few cases to the great prejudice of the Christian name among the Hindus. They would commit the same mistake if they moved in the present matter. As for the Christian converts, I think I faithfully represent their feelings and sentiments when I say that they do not want such a law.

CHRISTIAN CONVERTS WOULD BE QUITE HAPPY WITH THEIR HINDU WIVES.

Your converts would be quite happy if they could only get back their Hindu wives married to them in infancy. A convert would never think of beginning his Christian life by doing an act so cruel and heartless to his helpless Hindu partner, and justly calculated to throw suspicion on the genuineness of his conversion. He would rather die than do such a thing. Those few who availed themselves of the provision of Act XXI of 1866, did so in some cases, to my knowledge, most reluctantly, and after all efforts to get back their infant wives had resulted in complete failure. The feeling amongst us, Bengalee Christians, on this point is, I believe, so strong, that the convert who would dare take a second wife when, his Hindu wife was willing to come and live with him, would be ostracised at once. Such a feeling, I most emphatically say, is a most noble and unselfish feeling,—a feeling worthy of those who have left all for Christ, and I do hope and pray that in the midst of the rage for wooing and winning, my Bengali brethren will religiously cherish the sentiment.

[**Note by the Editor.**—The following opinion on the subject of *matrimony of converts*, so ably discussed by the "Bengalee Christian" will be found to be helpful and to the point. This opinion comes from no less distinguished a personage than a late member of the Indian Civil Service, and Member also of the Supreme Legislative Council of India,—Robert Needham Cust, LL. D., a great friend of the Christian Missionaries but unsparing in the exposure of their methods. Says he:—"It will be remarked that the Mahomedan who abandons Islam, at once loses his wife: the contract is dissolved. In the case of the Hindu, the marriage-tie is indisoluble. In the first Mission Congress at Lahore,. 1862, I protested against any facility being given to the convert to marry again; and when the Native Converts Divorce Act was brought before the Legislative Council of India in 1864, I again, as a member of that Council, opposed it but it was carried, and is now the law. The convert has to ask the wife to come and live with him: if she does not do so within a certain time, he may marry again. *This seems a bad beginning of a new life: pari passu* he might get rid of a lunatic wife, or a bed-ridden wife, or any other wife who from incompatibility of temper refused to live with her husband" **Addressed to the Members of Missionary Conference of the Church of England, London, 1894.**

A BENGALEE CHRISTIAN.

Uttarpara
Jaikrishna Public Library.

THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

WHOLE No. LVI.	CALCUTTA, MARCH, 1902.	No. 8. VOL. V.

PRINCIPLES OF SOCIAL PROGRESS: THE STATICAL ASPECT.

In modern India the question of social progress is daily attracting more and more attention and it is well that it is so. But it is necessary that the subject should be rightly discussed—discussed in no off-hand, amateurish fashion—but with an eye to true principles—for it is then only that we are on safe ground. Now let us begin with what we are accustomed to hear as to the exact import of the phrase, *social progress.* Social progress involves and implies adaptation,—adaptation to circumstances, to 'modern conditions,' 'modern needs,' 'exigencies of modern civilisation; for without such adaptation, Indian society would cease to progress, would stagnate, would not evolve forwards, but only backwards—would, in fact, retrogress—and would soon cease to be a living organism, would be lost. Now, we hold that most of us, though we use the *word* correctly enough, yet hardly appreciate the full meaning of *adaptation* as applied to a living organism. In fact, the conception of the life of an organism—of organic life is not very clear to most minds; otherwise, the silent war that is waged between what are known as the conservative and the progressive sections of the Indian social polity would be nowhere. The life of an organism is primarily a life of *unity*; in other words, in an organism, all the different organs perform separate, independent functions; but all such *independent* functions are nevertheless so co-ordinated, so adjusted, so adapted as to subserve a *common* purpose, a *common* life, as to help in reaching a *common* goal. That is the fundamental distinction between a mechanical, non-living system, and a living organism. Adaptation there is, but not in the sense of a blind acquiescence to the powers that be. Not a mean surrender to, but a controlling mastery over the forces existing in and around us, using, utilising and modifying or rejecting, as the

case may be, the existing circumstances, the conditions around us—such is *adaptation* in the *right sense of the word*, in the sense in which we find it used by scientists and responsible thinkers. The first thing necessary, then, is to find out the goal of all our activities the point to which we strive to attain, the ideal which we strive to realise, the *common* purpose to which all our activities have to be adapted and subordinated. The moment we forget our ideal, the vitalising principle of our own social life, the purpose of our social activities, that moment, the social organism has suffered a partial death; has become non-living, inorganic. Existing forces have to be encountered no doubt; and we have to control them and not allow them to get the better of us. But such control pre-supposes that we have our own ideals to follow—our own interests to serve, in whose interests the forces have to be controlled. It may even happen that adaptation would involve not acceptance, but steady opposition to the inrush of aggressive forces. If the surrounding forces help us in the attainment of our *own* ideal—well and good; we accept them and cherish them and make the best use of them. If they are partially helpful, we do not accept them *in toto*, but we try to modify them, to take from them their good, and reject what is in them evil. If, however, they are positively harmful; if, for instance, they present an ideal of life and thought which is the very reverse of our *own* ideal, well, in that case, there must be an uncompromising warfare, war to the knife; and if in the last resort victory is not ours, the defeat itself is a high spiritual discipline, a high spiritual glory. It may be said that the ideal of life and thought to which a society or an individual may cling may require to be changed, modified or rejected; there ought to be a continual revision of ideals, in the presence of evolving forces. No doubt. But we have been speaking not of *evolution of ideals*; but the *adaptation* of forces in the interests of a *given* social ideal. We have taken it for granted that Hindu society has an ideal of its own, which may be called the very breath of its life; which may also be denominated the principle of its progress; just as European civilised society has an ideal of its own, the principle of its life and growth—that which may not be obtrusively present before itself, but to which it nevertheless and even unconsciously bends its knee, because it is not outside that society, but is immanent, constituting the very essence of its life. All Western activity is consciously or unconsciously dominated by *that* central fact; its religion, its ethics, its industry, its commerce, its education, its politics, its literature, its philosophy :all bow to the power of that central fact. We do not

pause to enquire what the *genius* of its life, the vitalising principle of its progress is—but we have just to remember that there is such a social principle; and adaptation in the case of Western society does not mean, and has not meant the giving up of its ideal, but only making the existing forces subserve the interests of that ideal. It is not a case of giving up what is one's own, but the principle of adaptation is exactly the reverse of it—it is the *imposing of our will* even in the act of conscious acceptance. In a word, it is never acquiescence, never slavish submission, but always a clear, conscious, cheerful choice. It is always domination. Facts are either cherished, modified, partially cherished, or opposed; but in every case the act is one of conscious choice. Such is adaptation; and a society like an individual that yields up its life, by ceasing to act as an active, controlling agent, may live on, no doubt, physically, but in truth it has already committed suicide. We have here presented only one aspect of the principles of Social Progress—the statical aspect or the view-point of order. For all progress is built on Order; and we have tried to show that all progress is delusive, and even mischievous, when it is not built on order; for the very bases of a society are undermined when it has lost its power of *self*-control, *self*-choice, its power of acceptance modification or rejection. For, while one may be rejoicing that the society to which he belongs is progressing, it may,—in very truth, be in the condition of being overwhelmed, having lost its choice, and with it its own self.

EDITOR.

LORD CURZON'S ADDRESS TO THE RISING GENERATION OF EDUCATED INDIANS.

[The following is from an address delivered on the occasion of an annual Convocation of the Calcutta University, 15th February, 1902, by Lord Curzon in the capacity of Chancellor of the said University. The address deserves to be *specially* studied by our College young-men, as affording them ample materials for serious reflection and a guide in the direction of strenuous effort.—*Editor, Dawn.*]

PURPOSE OF THE ADDRESS.

It is an Indian audience that I am addressing, and it is therefore of Indian character, surroundings, and temptations that I propose to speak. Just as there are different storm-charts for different seas, so are there features inherent in physical and climatic surroundings and characteristics associated with nationality or temperament, that differentiate the population of one country from that of another, and that suggest varieties of precept or admonition. For the moment

I am an Englishman addressing Indians. If I were an Indian addressing Englishmen, I daresay I might have a number of remarks to make that would be equally pertinent, though they might not be identical. Nothing in either case is easier than for a speaker to flatter his audience. I think that I could, without difficulty, construct a catalogue of the Indian virtues, for I know them both by contact and by repute. You might applaud, but you would not go away any the wiser; while I should have gained nothing better than your ephemeral cheers. This is not what I want to do. I do not propose to-day to hold up a mirror to your merits. Let us accept them and put them in the background. I want rather to see the dangers to which in the several professions that I have named you are liable, and to put you on your guard against what seem to me to be the temptations and the weaknesses that lie athwart your future careers.

TO GOVERNMENT SERVICE ASPIRANTS.

A good many of you will probably enter, and I daresay that still more aspire to enter, the service of Government. I do not say that this is not an honourable ambition. Indeed, if it is synonymous with a desire to serve your country, it is the most honourable of all; whereas, if it signifies no more than a desire to earn a comfortable billet, and there contentedly to rust, it is the most despicable. I will assume, however, as I think that I reasonably may, that those of you who propose to adopt this career desire to do so with the fullest intention of justifying your selection and of rendering public service. What are the chief perils against which you have to be on your guard? I think that they are two in number. The first of these is the mechanical and lifeless performance of duty, the doing a thing faithfully and diligently perhaps, but unintelligently, and therefore stupidly, just as a mechanical drill in a workshop will go on throughout the day, so long as the steam is in the boiler, punching an endless rotation of holes. This is a danger to which the Indian with his excellent memory, his mastery of rules and precedents, and his natural application, is peculiarly liable. He becomes an admirable automaton, a flawless machine. But when something happens that is not provided for by the regulations, or that defies all precedent, he is apt to find himself astray. He has not been taught to practise self-reliance, and therefore he is at a loss, and he turns to others for the guidance which ought to spring from himself. This is a fault against which you ought to struggle unceasingly, for there is no malady that grows so quickly as dependence upon others. Accuracy and fidelity may constitute a good subor-

dinate, but by themselves they will never make a good administrator, and they will never carry you out of the ranks that follow into the ranks that lead.

SELF-RELIANCE AND THOROUGHNESS.

The second danger that I could ask you to shun is the corollary of the first. You must not only learn to be self-reliant, but you must be thorough. You must do your work for the work's own sake, not for the grade, or the promotion, or the pension, or the pay. No man was ever a success in the world, whose heart was not in his undertaking. Earnestness, sincerity, devotion to duty, carry a man quickly to the front, while his comrade of perhaps superior mental accomplishments, but with deficient character, is left stumbling behind. If you look round the world and enquire why it is that in so many foreign countries the Englishman, without any of these native advantages of familiarity with the language, the people and the clime of those countries has yet been invited to undertake, and has successfully undertaken the task of regeneration of reform, you will find that it has been because of the universal belief in his integrity, his sincerity, and his purpose. People know that his heart is in his task, and that, when the pinch comes, he will stick to his post. Therefore, I cannot give to you, young Indians, better advice—and I give it I cannot assure you without a trace of national vanity—than to say, Go you and do likewise; avoid superficiality; put your soul into your work; be strenuous; and assuredly you will not fail of honour in your own time and country.

TO PROFESSIONAL ASPIRANTS.

The same reflections apply, *mutatis mutandis,* to those among you who intend to embark upon a professional career, whether as engineers or doctors, or in whatever walk of life. The same shortcomings will keep you back. Similar standards are required to urge you on. The world is moving very fast; and the man who thinks he can stand still will presently tumble off into space. In the broad field of professional activity, I hardly know one pursuit in India in which there exists any racial bar. There is nothing in the world to prevent an Indian from rising to the topmost rung of the ladder in the practical callings. Efficiency is the final test, and self-reliance is the golden rule.

TO THE FUTURE PRACTISING LAWYER.

Some of you, whom I am addressing to-day, will pass out of this hall to the study or the practice of the law. You too have your ad-

vantages, for it cannot be doubted that the Indian intellect possesses unusual aptitudes for legal pursuits, and that the extent to which the principles as well as the practice of alien systems of law have been assimilated in this country is one of its most remarkable features. But here, too, there are certain pitfalls yawning in front of you which you must endeavour to escape. I do not say that they are not visible elsewhere, or that they are not to some extent common to every Law-court and every Bar? That may be a truism, but it is neither a palliation nor an excuse. The first temptation that you should avoid is that of letting words be your masters, instead of being masters of your words. In a Law-court, the facts are the first thing; the law is the second; and the eloquence of the barrister or pleader upon the facts and the law is the third. Do not let your attention to the third subject obscure the importance of the first and second, and most of all the first. Words are required to express the facts, and to elucidate or to apply the law. But when they become the mere vehicle of prolix dissertation they are both a weakness and a nuisance. The second danger of the Law-courts is the familiar, forensic foible of over-subtlety, or, as it is commonly called, hair-splitting. We know what people mean when they say, That is a lawyer's argument; and although the taunt may often be undeserved, there must be something in it to explain its popular acceptance. Try, therefore, to avoid that refining, and refining, and refining, which concentrates its entire attention upon a point—often only a pin-point—and which forgets that what convinces a Judge on the bench or a jury in the box is not the adriotness that juggles with minutiæ, but the broad handling of a case in its larger aspects.

TO FUTURE INSTRUCTORS OF YOUTH.

I turn to those young men who are going to be teachers of others I pray them to recognize the gravity and the responsibility of thei. choice. Rightly viewed theirs is the foremost of sciences, the noblest of professions, the most intellectual of arts. Some wise man said that he would sooner write the songs of a people than make its laws. He might have added that it is a prouder task to teach a people than to govern them. Moses is honoured by the world beyond David, Plato beyond Pericles, Aristotle beyond Alexander. Not that all teaching is great or all teachers famous. Far from it. Much teaching is drudgery, and many teachers are obscure. But in every case the work is important, and the workman should be serious. The first thing I would have you remember therefore is that you are not entering upon an easy or an idle profession. It is the most respon-

sible of all. When you have realised this guiding principle, the next thing to bear in mind is that the teacher should profit by his own previous experience as a student. He should not inflict upon his pupils the mistakes or the shortcomings by which his own education has suffered. For instance, if he has been artificially crammed himself, he should not proceed to revenge himself by artificially cramming others. Rather should he spare them a similar calamity. The great fault of education as pursued in this country is, as we all know, that knowledge is cultivated by the memory instead of by the mind, and that aids to the memory are mistaken for implements of the mind. This is all wrong. Books can no more be studied through keys than out-of-door games can be acquired through books. Knowledge is a very different thing from learning by rote, and in the same way education is a very different thing from instruction. Make your pupils, therefore, understand the meaning of books, instead of committing to memory the sentences and lines. Teach them what the Roman Empire did for the world, in preference to the names and dates of the Cæsars. Explain to them the meaning of government, and administration, and law, instead of making them repeat the names of battles or the populations of towns. Educate them to reason and to understand reasoning, in preference to learning by heart the first three books of Euclid.

Remember too that knowledge is not a collection of neatly assorted facts like the specimens in glass-cases in a museum. The pupil whose mind you merely stock in this fashion will no more learn what knowledge is than a man can hope to speak a foreign language by the poring over a dictionary. What you have to do is not to stuff the mind of your pupil with the mere thoughts of others, excellent as they may be, but to teach him to use his own. One correct generalization drawn with his own brain is worth a library full of second-hand knowledge. If the object of all teaching is the application to life of sound principles of thought and conduct, it is better for the ordinary man to be able to make one such successful application, than to have the brilliancy of a Macaulay, or the memory of a Mezzofanti.

To Journalistic Aspirants.

Next I turn to those among you who are going to enter the honourable profession of journalism. I know something of journalism, and I am acquainted both with its privileges and its snares. In India I have made the closest study of the Native Press, since I have been in the country, partly because it tells me to some extent what the educated minority are thinking and saying, partly because I often

learn from it things that I should otherwise never hear of at all. I am not, therefore, an ignorant or a prejudiced witness. On the contrary, I think that Native journalism in India is steadily advancing, and that it is gaining in sobriety and wisdom. But I am not here to-day to discuss merits. I have undertaken the more venturesome task of pointing out weaknesses and errors.

The first of these that I would ask you young men to avoid is the insidious tendency to exaggeration. If I were asked to sum up in a single word the most notable characteristic of the East—physical, intellectual, and moral—as compared with the West, the word exaggeration or extravagance is the one that I should employ. It is particularly patent on the surface of the Native Press. If it is desired to point out that a public man is a deserving person, it is a common form to say that he deserves a statue of gold. If he has done something that is objected to, he is depicted in almost Mephistophelian colours. This sort of exaggeration is not only foolish in itself, for it weakens the force of writing; but it is often unfair as an interpretation of public sentiment. There is nothing more damaging to national reputation than a marked discrepancy between words and acts. If, for instance, a great Indian dies and is extolled in glowing language by the Native Press for his services and his virtues, and a subscription list is then opened to commemorate them—and if the response to this appeal turns out to be utterly inadequate—the reflection is suggested, either that the Press has been extravagant in its laudations, or that the national character prefers words to deeds. In either case, a bad impression is produced.

Then again do not impute the worst motives. Try to assume the best. If a thing has been done that you disapprove of or that is not clear, do not jump to the conclusion that there is something sinister in the background. Assail the government if you please—Governments, I suppose, are put into the world to be criticised—but do not credit them with a more than average share of human frailty: and, above all, make some allowance for good intentions on their part.

I have a few other words of advice to give you, but they must be brief, as I have not the time to expand. Do not employ words or phrases that you do not understand. Avoid ambitious metaphors. Do not attack in covert allegories, or calumniate in disguise. Remember, when you use the editorial "we," that "we" is, after all, only "I," and that the individual "I" is only one among three hundred millions. Recollect that your opponent or your victim very often

cannot answer you; and that he is often just as good a man, perhaps even a better and wiser than yourself. Never descend to personalities; avoid that which is securrilous and vulgar and low. There is always a stratum of society of depraved and prurient tastes. Do not write down to its level, but draw it up to your own. You perhaps have been told that the Press ought to be no respecter of persons. Yes but that is a very different thing from respecting nobody. First learn to respect others and you will find before long that you have learnt to respect yourself. Do not sharpen your pen-point and think that mere sharpness is wit. Remember the saying of Disraeli in the House of Commons that petulance is not sarcasm and insolence is not invective. Above all never forget that the Press has a mission, and that mission is not to inflame the passions or to cater to the lower instincts of your fellow men, but to elevate the national character to educate the national mind and to purify the national taste.

THE IMPERIAL IDEA.

And now to all of you together let me address these concluding words. The spirit of nationality is moving in the world, and it is an increasing force in the lives and ideals of men. Founded upon race and often cemented by language and religion, it makes small nations great and great nations greater. It teaches men how to live, and, in emergencies, it teaches them how to die. But, for its full realization, a spirit of unity, and not of disintegration, is required. There must be a sacrifice of the smaller to the larger interest, and a subordination of the unit to the system. In India it should not be a question of India for the Hindus, or India for the Mussulmans, or, descending to minor fractions, of Bengal for the Bengalis, or the Deccan for the Mahratta Brahmans. That would be a retrograde and a dissolvent process. Neither can it be India for the Indians alone. The last two centuries during which the British have been in this country cannot be wiped out. They have profoundly affected the whole structure of national thought and existence. They have quickened the atrophied veins, of the East with the life-blood of the West. They have modified old ideals and have created new ones.

> "And not by Eastern windows only
> "When daylight comes, comes in the light;
> "In front the sun climbs slow, how slowly,
> "But westward, look, the land is bright!"

Out of this intermingling of the East and the West, a new patriotism and a more refined and cosmopolitan sense of nationality

are emerging. It is one in which the Englishman may share with the Indian, for he has helped to create it, and in which the Indian may share with the Englishman, since it is their common glory. When an Englishman says that he is proud of India, it is not of battlefields and sieges, nor of exploits in the Council Chamber or at the desk that he is principally thinking. He sees the rising standards of intelligence, of moral conduct, of comfort and prosperity, among the native peoples and he rejoices in their advancement. Similarly, when an Indian says that he is proud of India, it would be absurd for him to banish from his mind all that has been, and is being, done for the resuscitation of his country by the alien race to whom have been, committed its destinies. Both are tillers in the same field and both are concerned in the harvest. From their joint labours it is that this new and composite patriotism is springing into life. It is Asian, for its roots are embedded in the traditions and the aspirations of an Eastern people; and it is European, because it is aglow with the illumination of the West. In it are summed up all the best hopes for the future of this country, both for your race and for mine. We are ordained to walk here in the same track together for many a long day to come. You cannot do without us. We should be impotent without you. Let the Englishman and the Indian accept the consecration of a union that is so mysterious as to have in it something of the divine, and let our common ideal be a united country and a happier people.

INDIA'S MISSION AND THE INDIAN'S DUTY.

I.

No life can grow without an aim, whether individual or national.

What then should our that aim be?

It is the growth and evolution of our own Eastern civilisation, the maintenance of the individuality of the Indians as a nation.

Eastern civilisation is not, in fact, devoid of vitality; the Westerners even do not disregard it; but there is a good deal of difference in the lines of growth of the two.

One is for enjoying only the life that is, and the assertion of rights; the other is anxious to raise man and society above the spirit of *enjoyment* and insists on the cheerful performance of duties in this life *with an eye to eternal life.*

This anxiety for the life to be is not however without a foundation.

The life of an individual or of a society cannot be properly shaped and moulded without a foresighted reference to his or its future life.

II.

It may be that, unable to stem the tide of Western civilisation and retain their own individuality in the sharp encounter between the East and West, the Indians might turn into a new nation like the Japanese; but that would not mean the growth of the Eastern civilisation but only this,—that a new field has been discovered for the operation of the forces of Western life; while the Eastern civilisation is doomed.

It is not the sign of strength to bend to the current; but to stand against the current with one's strength and to be able to develop what is one's own and to resist what is truly harmful to that development is true manliness Otherwise, where is the difference between man and a blade of grass?

We should receive all that is good in Western life, its intellectual progress, its philosophy, its unity, its patriotism, its energy, &c.; for the good is to be sucked out and assimilated wherever it should be found.

We do not propose that the Oriental should abandon even the good practices of Western life :

तातस्य कूपोऽयमिति ब्रुवाणाः ।
क्षारं जलं कापुरुषाः पिबन्ति ॥

III.

The means of preserving the Eastern ideal are the student community and on them depends all future progress.

And the foundations will have to be laid in such qualities as patience, self-control, health, and devotion to the maintenance of the individuality of the ancient nation, and of their manners and customs.

But, above all, is required self-sacrifice. For the preservation of our ancient nationality this quality is all-essential.

Be the sacrifice as small as it may, still that sacrifice must come from the very heart, must be whole-souled; for, however humble or insignificant one might be, great things could nevertheless be achieved by a humble worker.

IV.

A regard must be had for the ancient shastras, the history of the country, its philosophy, its industry, its commerce, &c.

We must also firmly grasp and watch the main principles of development of those nations that are already great in modern times and those that are still growing.

In these times of international intercourse, if we merely yield to the course of circumstances, our own Eastern ideals will be lost for ever. The strong Western ideals are about to sit upon the throne of Eastern ideals, as it were, and if we can in any way hold on for a time, then ancient India will once again smile in the halo of her old greatness.

The sovereign's toleration enables us to hold to our own religion. If the sovereign did not keep his own promise, our religion might have been extinguished by this time.

If we read aright the signs of the times, no foreign nation would have any exclusive religion of its own: but the different foreign nations would lose themselves in a common hodge-podge of a religion, retaining only the elements of some vague, unsatisfied, spiritual longings. This, therefore, is *the* time for keeping up, for holding on to, the religion of the East. If the younger generation, the hopes of the country, should make some sacrifices with a view to the preservation of Eastern ideals, who can say that, in time, the spiritual civilisation of the East shall not yet cover the whole earth?

And finally are wanted humility, truthfulness, service to superiors, and self-control.

An undivided attention could not be given to any work without an unselfish disregard of the result. On the contrary, fear of failure gradually diminishes the enthusiasm, cheerfulness, &c.

कर्म्मण्येवाधिकारस्ते मा फलेषु कदाचन।
मा कर्म्मफलहेतुर्भूर्मा ते सङ्गोऽस्त्वकर्म्मणि॥

Gita—II. 47.

[Translation:—Work, but work without a selfish attachment to its results, is what you are enjoined to do. Be not actuated by the fruits of action, nor take thou to inaction.]

Concentration and self-confidence are at the root of success.

Now-a-days, in our pursuit of knowledge there is neither concentration, nor self-confidence, nor self-reliance. Our desire for knowledge is not for knowledge for its own sake, nor for the wealth it could bring; for it is not based upon either concentration or self-reliance. From our childhood we have been taught to regard, as the fruit of all knowledge, the earning of our livelihood even at the sacrifice *of all self-respect.*

The only result of our pursuit of knowledge is a greater opportunity to lick the feet of others—there is an utter absence of self-help, at the mere name of which we get frightened when we are reminded of it.

It is force of concentration and self-help that enabled Vasco de Gama to reach our shores. It is again this power which made Columbus discover America. Without these qualities there is no second way of uplifting a nation.

If you want to reawaken Oriental India, if you take pride in being known as a true-born son of this Bharat-land, you should try to acquire the concentration of the ancient Indians, their spirit of perseverance, and their patriotism. Take up again that which you have in your ignorance trampled under foot.

A false estimate of success in life as consisting only in putting down others,—this we must put aside; for, it is necessary above all things, to curb the spirit of self-conceit, if we are to be of service to our country—if we are to understand its wants and its weaknesses. Love of country is indeed a great Yayna ("sacrificial rite"), to perform which faithfully we must make a complete offering of selfishness and vanity.

Character is at the root of success, the principal means of improvement. A man without character is of no use in the world and he is worse than a beast.

Merely proclaiming with our lips, our desire to improve our motherland will not do; for, first of all, we should learn to love our country. We have lost all we had, one after another;—for, unable to recognise gold, we have substituted glass in its place. Now, we must painfully retrace our steps, and then we may again have all we have lost through our own oversight.

Our first duty is following the lines of work laid down by the Rishis of old. The next is the blending of the individual with the national life, the trying to feel for others. Rather than getting over-anxious to secure more material comforts and more material enjoyments, better follow your own Oriental ideal of plain living, high thinking and unselfish life and you will see that you have everything that you want even before your eyes.

Another means of improvement is obedience. If the son does not obey the father, the pupil his teacher, the servant his master, then society will fall into a state of terrible anarchy.

The cultivation of this habit of obedience is at the root of the uplifting of the social, national and the individual life.

How should a man know anything of which he is quite ignorant, unless he obeys one that is master of it.

Like the patient, unless he be obedient, his ruin is certain.

It is this want of obedience on the part of inferiors, to superiors that has so degraded us at present. Hence, there is everywhere want of unanimity, whether in society or in religion or in politics.

Now-a-days, no attention is paid to eligibility or adaptation. One who knows nothing of mathematics will nevertheless talk a good deal about it just to show himself off. This fashion prevails everywhere.

It is this want of due subordination that has made us the laughing-stock of the world, and all our conjoint actions, a nullity. So long as the power of independent thinking does not grow in us, so long we cannot raise ourselves a single step without submission to authority.

Obedience makes god of man, adorning him with humility. It is the want of this that has caused the anarchy of the present time.

V.

Obedience is of two kinds. The first is the obedience of ignorant or of ill-informed, unthinking men to those who know and can think for themselves and others.

The second kind of obedience is called co-operation. In co-operation, the members do their separate work, and yet obey a leader that looks after the common good and is charged with enforcing obedience when necessary.

The second kind of obedience is what modern Indians mostly lack. We have no idea of a common good, the good of the whole society of which we are all members.

We are always quarrelling with one another, we are jealous of one another; for we look only to our private interests. We have not developed the idea of a common good and of co-operation with one another and submission to a common head to promote a common good. We are yet too selfish.

The following story will illustrate my meaning:—

A quarrel broke out among gentlemen who were members of the scribbling community, whose members were,—the writing desk, the owner of the desk, a note-paper, an envelope, an ink-bottle, a pen, a blotting-paper, and a pen-wiper.

The writing-desk lay open; its owner had been called away in the act of beginning an important letter.

The silence of the room was broken by the Note-paper speaking to his companions.

"You needn't look so consequential," it said scornfully; "it is on me the letter will be written."

"Yes," said the Pen; "but you forget, it is I who write it."

"And you forget," said the Ink, "that you couldn't write without me."

"You needn't boast," said the Ink-bottle, "for where would you be but for me?"

"It is ridiculous of you all to be so conceited," said the interrupted Blotting-paper; "only for me what a mess you would be in."

"And may I ask," said the Envelope, "what use would any of you be if I did not take the letter safely where it is to go?"

"But it is I who write the directions on you," snapped the Pen.

"Dear sirs, please stop quarrelling," gently said the little Pen-wiper, who had not spoken yet.

"WHAT have you to say?" asked the Pen, contemptuously. "You are nothing but a door-mat," and he laughed at his own wit.

"Even if I were only a door-mat," said the Pen-wiper, humbly, "only for me you would be so rough with dried ink you could not be used. And that is all any of us good are for—just to be used. We might all say here for the rest of our lives and not all of us put together could write that letter. Only the hand of our master can do that."

"I believe he's right," said the Envelope and the Note-paper together.

"Yes," said the Ink. "It was foolish of us to forget that we can do nothing unless we are used."

"True enough," murmured the Ink-bottle, "for what use would I be if you were not in me."

"Yes, to be sure," said the Blotting-paper, "we ought to have thought of that."

"Indeed, yes: and I am sure I beg your pardon Mr. Pen-wiper, for calling you door-mat," said the Pen in a humble voice.

"Please don't mention it," said the little Pen-wiper, but I do think we would be happier if we would just do the best we can, without being jealous."

As he spoke, their owner re-entered the room and silence fell. The Pen was taken up, dipped in the Ink, and passed to and fro on the Note-paper; the Blotting-paper pressed on it; the letter placed in the Envelope; the address written; the Pen wiped on the Pen-wiper.

"We have each done our part," murmured the Ink.

"Yes," said the Pen, and without our Master we could have done nothing at all."

VI.

In what does the manhood of man consist? It is in his power of conjoint, independent work that a man is superior to the beast and is nothing else.

The body of the beast is intended for enjoying, man is intended for work, not enjoyment. But man may by abandoning himself to impulses degrade himself into a beast, while he can raise himself to a god.

उद्धरेदात्मनात्मानं नात्मानमवसादयेत् ।
आत्मैव ह्यात्मनो बन्धुरात्मैव रिपुरात्मनः ॥

Gita—VI. 5.

[*Translation.*—One should try to raise himself by self-effort; never should he let himself sink. For one's own self is his friend, and his own self is his foe.]

Independent action, if directed towards the expansion of the self, can raise a man to a god; but if directed against it, will degrade him to the level of the beast; till, in time, descending lower and lower, he is like lifeless matter, devoid of all will or desire. He is then the shadow of another and forgets his place in creation.

बन्धुरात्मात्मनस्तस्य येनात्मैवात्मना जितः ।
अनात्मनस्तु शत्रुत्वे वर्त्तेतात्मैव शत्रुवत् ॥

Gita—VI. 6.

The principal means of stimulating this habit of purified, independent work is *knowledge* or wisdom. "नहि ज्ञानेन सदृशं पवित्रमिह विद्यते ।" (*i.e.*, nothing is more sacred on earth than knowledge). For the acquirement of this knowledge or wisdom, श्रद्धा or reverence is indispensably necessary.

श्रद्धावान् लभते ज्ञानं तत्परः संयतेन्द्रियः ।
ज्ञानं लब्ध्वा परां शान्तिं अचिरेणाधिगच्छति ॥
अज्ञश्चाश्रद्दधानश्च संशयात्मा विनश्यति ।
नायं लोकोऽस्ति न परो संशयात्मनः ॥

Gita—IV. 39—40.

[Translation:—The man of faith who hath subjugated his senses, and is intent upon wisdom, obtaineth it. Having obtained wisdom, he cometh erelong to Bliss supreme. And he who hath no wisdom nor faith—his soul, all doubt, perisheth. Neither this world, nor the next, is his whose soul is all doubt.]

VII.

No improvement can be effected by the *mere* reading of books. In ancient times, men obtained a greater knowledge from staying in their Preceptor's house and from His company. The company of great-men and saints very often turns the course of a man's life.

In these degenerate times it is our first duty to seek good company and to study good books and the scriptures.

To fall down is easier, to rise up is very difficult; so we should be very careful lest, once falling down, we should be unable to lift ourselves.

The cause of the degeneracy of India is only her want of seekers after knowledge—*i.e.*, want of genuine students. When there were true students, there was true knowledge. Science, wealth, health and everything worth having, has with them fallen into decay, like the branches of a tree with the roots cut down. If there again should rise up a class of true seekers after knowledge, then alone may India regain her former greatness—otherwise not.

You may be wiser than Minerva; but if your wisdom is not used in the service of the world, of what use is it then to the world? It is as useless as the miser's wealth.

When is a man revered by others? It is when he does good to others. Otherwise, with your strength of a hundred elephants, if you do not use it in the service of the world, how is your strength deserving of praise?

There are many bigger *planets* on the firmament than the Sun. Wherefore, then, is the worship of the Sun alone? Because the Sun serves the world. Though He does not want to be worshipped, still as we are led to think of His benevolence, we involuntarily bow to His feet. Such is the influence of the virtue of benevolence.

So long as you are not able to efface yourself and blend your life with that of others, so long you have not made any real progress, in manhood, however much you might outwardly shine.

VIII.

With food are intimately connected knowledge and religion. Without Sattwa-guna, the power of discrimination between right and wrong cannot be awakened and developed: Without pure or *sattwik* food, *sattwik* ways of thinking and Sattwik deeds, the heart cannot be softened. No outward refinement can develop this higher *sattwik* parts of your nature.

The dwelling-house of a man, whether it is a palace or a hut, does not determine the man's greatness. It is rather his character that determines it. So, laying aside all outer titles to greatness, deserve it by your inward qualities. With *your* improvement will your poor mother, India, effect hers.

IX: *Conclusion.*

Let it be once more repeated that a man's real greatness is by his service of others and his wisdom and character.

You may be a Ravana or Britrasur in power, wielding the destinies of many a god and a goddess; but if you are devoid of the virtue of benevolence you are no better than a fig. The man whose heart does not long for his country's good, who can see with dry eyes himself, the tearful eyes of others—such a man is really more insignificant and worthless than the "mute insensate" leaf of the tree.

Oratory is no sign of patriotism. If we *had true* patriotism, we should not be as we are now. How many of us tin our heart of hearts, for others? How many of us are willing to lay down our full lives for the regeneration of the down-fallen? Where is our old universal love?

It is very hard to raise ourselves when we are falling down. Still it is in ourselves, *i.e.*, in our own character that we must seek for the cause of our poverty and misery and, our weakness,—not in foreigners.

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INFANT MARRIAGE *versus* DEFERRED MARRIAGE: QUESTION OF LEGISLATIVE REMEDY: REFUTATION OF MAX-MULLER'S VIEWS.

[The late Professor Max-Muller writing from Oxford to Behramji M. Malabari under date 26th October, 1886, made some remarks on the subject of *Infant Marriage* which elicited from the "Bengalee Christian" certain observations in a letter to the *Statesman* newspaper of this city published in its issue of 5th July, 1887. "The Bengalee Chirstian" refutes Max-Muller's position with, it seems to us, some very good reasons. We give below the relevant extracts from Max-Muller's letter to Mr. Malabari and the *Bengalee Christian's* criticisms thereof.—*Editor*, *Dawn.*]

MAX-MULLER'S ARGUMENTS.

"I am not in favour of paternal government, not even in India,

But I hold that government loses its *raison de'tre,* if it does not prevent and punish what is morally wrong, even though the moral wrong has the sanction of religion and tradition. I do not say that infant betrothal and even enforced widowhood are morally wrong; but the consequences flowing from them lead to civil torts which any government, deserving that name, ought to prevent. * * "

"The case stands simply thus: 'Infant Marriage is a native custom, and we do not want the Government to interfere.' I have not a word to say against this argument, provided always no tort is inflicted on individuals."

"Government does not deserve the name of Government if it declares itself unable to protect each individual subject against personal torts, whether sanctioned by custom or not. Now, infant betrothal is a tort—it is a contract made without consent of one of the parties. If, therefore, that party suffers, and wishes to be released from an unjust contract, the Government ought so far to protect him or her."

THE *Bengalee Christian's* CRITICISMS:

The argument here is based upon the assumption that infant marriage, or betrothal, or by whatever other name you choose to call it, is a contract, and that the consent of both the parties is essential to make it binding. Where, therefore, this consent is wanting, and where one of the parties regards the contract as unjust, and wishes to be released from its obligations, Government ought so far to protect him or her. This is sound logic and common sense. But this argument, I fear, proves too much, and reduces marriage to a temporary connexion. What I mean is this. If consent be an essential to a binding marriage, then this consent should be an *intelligent* consent, the consent of one who has arrived at the age of discretion recognised by law, that is, 18 years in this country and 21 years in England, so that any marriage solemnized between persons one of whom is a minor should be held voidable at the option of the minor who may regard the contract as unjust and wish to be released from its obligation. *Is the learned Professor prepared to go so far and ask Government to pass a law declaring the marriage of all minors, be they Hindus, Mahomedans, or Christians voidable, on the ground of want of intelligent consent.* Consent there is in every Hindoo marriage, and a hearty consent too, because in most cases the little girl cannot realise the duties and responsibilities arising from her new relations. She is feasted and fêted, and goes to the hymeneal altar with a

lighter heart than others who marry late, and have to consider the serious responsibilities they take upon themselves. So, if Hindoo marriages are to be made voidable by legislative action, on the ground of want of consent, *the legislators, to be consistent, must declare the marriage of all minors, be they Hindoos, Mahomedans, or Christians, voidable also*; but this, I should presume, the Government is not prepared to do, nor do I think the learned Professor would advocate such a measure. Why then raise the question of consent? Of what value is the consent of a girl of 13 or 14, when she knows nothing of the world, and when she is most likely to be deceived. If such a girl parted with a trinket of the value of one rupee, she had only to bring the matter before the court, and the same would be at once restored to her. But if she disposes of her person to a man whom she afterwards finds to be most unworthy, there is no relief for her and no one stands up to seek any, though the hardship in this case is not less than that of the girl who disposed of herself at the age of 8 or 9. But this is not all. *If you say that marriage is a contract, as Professor Max-Muller seems to argue, and if the principles of contract apply to it, then I do not see how you can say that it ought not to be dissolved by mutual consent.* All contracts are dissoluble by mutual consent; why not marriage then? We shrink, however, with horror from such a position, and this proves clearly to my mind, that marriage cannot be looked upon as a mere contract, and that in discussing it, you cannot very well apply to it the principles of tort.

BROAD PRINCIPLES OF JUDGING OF A SYSTEM OF MARRIAGE.

Apart from moral and religious considerations, a particular system of marriage must be judged by its fruits, by its consequences upon society *at large*, and not *by its effects in individual cases.* To my own mind, a union between a girl of 18 and a young man of 24 would be the very best; but if you found that by keeping your boys and girls unmarried till these ages, and giving them free choice, you diminished the hope of their getting married; that only one out of every three or four got a wife, and the remaining two or three lived and died unmarried, then what would you do? The Hindoo legislator has solved the problem in one way, by prescribing marriage for every girl, and giving her no free choice; the English legislator has solved it in a different way, by making it optional, and giving to each party a free choice. The natural effect of the Hindoo rule has been the introduction of infant marriage with all its evils; and

that of the English rule, of late marriage with all its evils. The Hindoo rule of compulsory early marriage no more contemplates infant marriages than the English rule of option and free choice contemplates late marriages; but these are the necessary effects of the two rules, and the abolition of the one rule means the adoption of the other. The question, therefore, which every well-wisher of the country and every patriot has to face, is not *whether the system of child-marriage is good or bad; not whether it produces great hardship in many individual cases; but whether the system which is to take its place will do better and produce less evil,* I fear we are looking at the question only from one side, the dark side of infant-marriage; we are depicting its evils in glowing colours, because we daily witness them, but it is time that the evils of the rival system were closely examined before we are delivering a final judgment. I express no opinion on the respective merits of the two systems, I am not competent to pass any, as I have not seen English life in all its phases; and because I am unable to form an opinion, I counsel caution and moderation. Light and darkness cannot co-exist, and if the English social system be light, it will, by its own intrinsic merits, drive away the darkness of this land. Let us ask Government to spread the blessings of peace and education; let our men and women be educated; let them understand properly their rights and duties, and then we shall be in a position to speak with authority and power, and Government will be bound to grant our request.

BENGALEE CHRISTIAN.

THE INDUSTRIAL DEVELOPMENT OF INDIA.—II.

[*Concluded from page 206, Vol. V.*]

Now I will leave theoretical discussion and enter into practical details. There are one or two points in the present condition of the Indian textile industry to which I should like to draw the reader's special attention. The first is that though the hand-looms used in India to-day are the same as have been used for hundreds of generations, and hardly any attempt has ever been made to improve them, yet *the Indian hand-loom industry has by no means been entirely crushed by all the marvellous skill which has been brought to bear upon the construction of the European power-loom.* No doubt, it is in a very depressed condition, but it is still, next to agriculture, the most important of Indian industries. Two-thirds of the artisan population of India are, at the present day, hand-loom weavers, and the value of the annual out-turn of hand-woven fabrics is a matter of crores of rupees. We know that the very keen competition between European manufactures has

reduced their profits to a comparatively small margin. If, then, the mechanical efficiency of the Indian hand-loom could be improved, say by 15 per cent., which would be equivalent to a 15 per cent. duty on the imports of foreign piece-goods, it is reasonable to suppose that the Indian weaver might retrieve his position to a very large extent. Now, it is not only probable but an indisputable fact that the ordinary Indian hand-loom can be made more effective, not merely by 15 per cent. but by nearly 100 per cent. There are many kinds of hand-loom in use in India, from a primitive arrangement of a few sticks to the elaborate and ingenious apparatus used for Benares kincobs and textiles of a similar class. The loom of the ordinary kind, or that used for cotton clothes of medium quality, is mechanically as effective an apparatus as the European hand-loom was 150 years ago, a time when the Indian weaver not only had it all his own way in India, but was a formidable competitor in the European market. But since that time, while the Indian loom has remained the same, the European hand-weaver, by simple contrivances, which cost very little, has improved his loom in efficiency by nearly 100 per cent. The chief of these improvements is called the "fly-shuttle," simple but ingenious arrangement by which the shuttle, instead of being thrown by hand, is jerked across the warp by pulling a string attached to a lever. It was invented by an English weaver about the middle of the 18th century, and the discovery gave to England the supremacy in the textile markets of the world—a position she has maintained since. It has always been a matter of astonishment to me that after a lapse of a century and-a-half this invention is almost unknown in India, outside the great mills, where the principle of it is applied to the power-loom. The sewing machine, which is a much more recent invention, is known in almost every Indian village. There are goldsmiths and jewellers, brass-smiths, blacksmiths, and carpenters, all over India, who use European labour-saving appliances and improved tools, but practically nothing has hitherto been done for the improvement of the most important of all Indian handicrafts. European ladies have introduced the sewing machine, European firms and workshops have taught the goldsmith, brass-smith, blacksmith, and carpenter: no one has hitherto helped the Indian weaver; and he has not, like his European fellow-workman, been able to help himself. In the Madras Presidency, where I have inspected thousands of native hand-looms, I never discovered a fly-shuttle except in the Basel Mission weaving establishments and a few other mission schools. The use of it never seems to spread among the weavers outside. A short time ago I discovered, through a report written by Mr. Collin in 1890, that it was used by a prosperous colony of weavers in the Hughli and adjacent districts, chiefly at Serampore. How they came to adopt it I could not ascertain, but probably some one, during the time of the Danish Government at Serampore, had imported a European hand-loom and taught the weavers how to use it. The Bengal Government at my suggestion, are

taking steps to make the use of the fly-shuttle known throughout the province. At present it is in partial use in 8 districts out of the 48. No doubt long and patient efforts will have to be made to persuade the mass of the weaving population to overcome their dislike to innovations, even though the benefits to be derived from them may be obvious. The mechanical improvement of hand-looms is, in my opinion, one of the most important industrial problems to be dealt with in India, and perhaps one of those which presents the least difficulties. I only hope that other Governments will follow the lead of Bengal in this matter, and that District Boards and Municipalities all over the country will assist in reviving the great Indian hand-loom industry. It is my firm belief that there is hardly a more safe and lucrative field open for Native and European capitalists in India than there is in the development of hand-loom weaving. Hand-loom factories are profitable in Europe; they should be much more so in India, where conditions are so much more favourable.

It is commonly believed in India that the hand-loom industry in Europe has been entirely supplanted by the power-loom. This is very far from being the case. In France, Switzerland and Italy there is still a great deal of silk-weaving done by hand. In Scandinavia, you will find the hand-loom in every village, and the peasant women will not only weave their own linen, but spin the thread they require for sewing. In England, the great centre of the power-loom industry, there has been lately a remarkable revival of hand-loom weaving. Hand-loom factories are being established in many places, where formerly everything was done by the power-loom. The demand for skilled weavers is greater than the supply. Here are a few extracts from a lecture given by Miss Clive Bayley, before the Society of Arts, London, a few years ago: "The recrudescence of the silk trade in the hand-branches has drawn its workers away from the congested city streets into the purer air and cheaper regions of Suffolk and Essex. Ipswich, Braintree, Sudbury, and the villages round are becoming centres of renewed activity, and if you want hand-weavers you will find it pretty well impossible to get them."

"Given the possibility of obtaining good weavers in the silk trade, the proceeds of a hand factory are quite as great as those of a steam factory. The outlay in machinery in the latter instance is far greater than in the former. The time and labour of getting the machinery under weight is for short lengths far more in a power-loom, than in a hand-loom, and the work of intricate patterns is infinitely superior when placed in the hands of a practised weaver than when entrusted to automatic machinery. Hand-loom firms rarely fail—power-loom firms are not nearly, I am told, so fortunate in this respect. But the great deficiency is workers; for, after the first conquest of machinery the product of hand-labour was discounted,

and the exaggerated importance and value of time seemed to paralyse industry." . . . .

"The superiority of work in the hand-looms will be a matter of positive proof, and can be and is generally becoming a subject of interest. The better the class of hand-workers we train, the greater will be this difference and the more potent will be the industrial revival which reconquers what was supposed to be an abrogated kingdom." . . . . . .

"One large silk firm is already raising the roof of its establishment in order to accommodate a large number of such hand-working apprentices. Another applied, though for what exact purpose I have not discovered, for 500 similar workers. Another, and I believe a linen firm, was reported to need 2,000 workers." . . . . "We have, however, barely touched on that all-important point—wages. What can a hand-weaver earn? As a matter of fact a hand-weaver is paid better than the watcher of machinery labour. He is also better paid now than at the end of the last century."

If the hand-loom can compete with the power-loom in England, where the cost of skilled labour is many times greater than it is in India, where the supply of trained weavers is very limited, and where the most perfect weaving machinery, worked by steam and electricity, is in use, what a much greater prospect must there be for it in India, where you have an unlimited supply of the most skilful hereditary weavers, content with earnings of four annas to eight annas a day!

I do not wish the reader to imagine that hand-weaving can hold its own against the power-loom to an unlimited extent. Both hand labour and machinery have their limitations. But there are splendid possibilities open for the hand-loom industry in India, and it is a preventible loss to India that the skilled weavers should day by day leave their looms and add to the already overgrown agricultural population.

With proper looms and proper instruction, the Indian weaver could not only recover a deal of the lost internal trade, but take a leading position in the world in hand-woven fabrics.

There are many branches of Native industry in which simple mechanical improvements and labour-saving devices can be introduced, by means of which production can be increased or improved to a very large extent. But as I do not wish to enter into too many technical details, I will only allude to one other. Every one who is familiar with native brass-work knows how all the vessels, lamps and other things made by the process of casting, are, by the native method, laboriously moulded by hand in wax patterns which are destroyed in the casting, so that only one object can be cast from one pattern. This process is also used in Europe, but only for single works of art of value, such as a bronze statue or bust. For ordinary

industrial purposes, there is a simple process of casting in sand, from wooden or metal patterns, which effects an enormous saving of time and trouble, because the patterns, instead of being destroyed in such casting, can be used over and over again.

Shortly before I left the Madras School of Arts, I introduced the teaching of this method into the metal-work class there. The subject was dropped afterwards, but I am glad to hear that Mr. Chatterton, who is now in charge of the School, has taken it up again. I must say that if District Boards and Municipalities would take up questions of this kind and employ trained workmen to go round to the various industrial centres and give practical demonstrations of improved processes and apparatus they might do much more than Schools of Art and technical institutes ever will be able to accomplish in spreading technical knowledge among the artisans of the country.

Before I have finished I will allude briefly to Indian Art industries. In some ways Art-work must be treated quite differently to ordinary commercial productions, but there is one principle which is common to both—**you must establish the home market on a healthy basis before you look abroad for foreign markets**. We have heard a great deal lately of the decline of Indian Art industries; but in nine out of ten of the proposals which have been made for reviving them, this principle has been entirely disregarded. *Both official and private exertions have been directed almost entirely towards the encouragement of the export trade.* I must repeat again and again my strongest conviction that this is an entirely mistaken policy. First, find out and remove, if you can, the causes which have led to the degradation of India Art *in India*, and *the export trade will revive and expand almost automatically*. On the other hand, unless effective measures are taken, before it is too late, to give back to Indian Art the prestige it has lost in India, and to remove those artificial impediments to its natural development which have existed so long, it needs no prophet to foresee that the export trade in Indian Art-ware will die an unnatural death. I have tried to explain in two papers, published in the "Calcutta Review," my reasons for believing that the decay of Indian Art is mostly due to the fatal mistake which has been made in Indian public buildings in supplanting the *living* traditional styles of Indian Architecture by imitations of modern European scholastic styles. Architecture is the principal door through which the artistic sense of the people finds expression. If that door is mostly choked with rubbish, as it is in India, is it surprising that art industries decline? I know that this theory is not easily grasped by those who imagine that art knowledge means only a knowledge of pictures and that this knowlege can be acquired by going to exhibitions or by making a picture-collection, in the same way as collections of postage-stamps or bric-a-brac are made. If I wished to estimate the value of any one's preten-

sions to art-knowledge, I would look first at his house, his tables and chairs, his carpets and everything connected with the routine of his home, last of all at his pictures; for if he does not understand the elements of art, it is not likely that he will have a correct appreciation of higher and more abstruse principles. In England, there has been lately a remarkable art-movement which is likely to have a most important influence on public opinion, since it has been strong enough to persuade that venerable, but somewhat effete institution, the Royal Academy, to modify some of its hoary traditions.

While England, and Europe generally, are beginning to free themselves from the corrupt artistic influences of the last two centuries, it is not encouraging to find that Indian Art feeling is far more debased in the great centres of European civilisation than it is in remote towns and villages. But why, I will ask, do Indians wait for Government initiative in the matter? No one compels them to go on following what is now recognised as the depraved European taste of several generations ago, which unfortunately was imported into India long before art-schools were etablished either in England or in India. They have magnificent examples of their own architecture and art to follow. Government would hail with the greatest satisfaction any efforts you made to rescue Indian art from the ruin which is overtaking it. *Queen Victoria herself employed the Indian artisans, whom India neglects, to decorate her Palace at Osborne in Indian style.* Why then do the Princes, artistocracy and wealthy men of India continue to build those monstrous and ridiculous palaces and mansions in imitation of the most corrupt period of European art, to the detriment of the art industries of the country, and to the disgust of every one whose artistic sense is in any degree developed?

Indian art has suffered much in the past from misunderstanding and neglect, but it is time to utilise all available opportunities for giving back to Indian architecture and art some of its lost prestige. Nor is it necessary to wait for Government initiative in the matter. It is a matter in which the people themselves, the aristocracy and the gentry are specially interested and ought primarily to bestir themselves.

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SVARAJYA-SIDDHIH—XXVI.

[*Continued from page 157, Vol. V.*]

इत्थमेव ततस्ततः श्रुतसृष्टिवाक्यकदम्बकं

प्रक्रियाद्यभिशीलनेन तदद्वयेन समानयेत् ।

युक्तिभिः श्रुतिभिश्च सप तटस्थलक्षणसंग्रहः

तत्फले खलु लक्ष्यसत्त्वपरिच्छिदात्रयवारणे ॥ २७ ॥

I. **Context.**—The present *S*loka gives instructions as how to find out the real significance of the other *S*rutis; it also states the results of the Tatastha Laksha*n*a given in all these texts from the *S*ruti.

II. **Paraphrase.**—ततः ततः (तत्र तत्र वेदान्ते) श्रुतसृष्टिवाक्यकदम्बकं (श्रुतं यत् सृष्टिवाक्यसमूहं तत्सर्व्वं) इत्थं एव (पूर्व्वोक्तरीत्या एव) प्रक्रियाद्यभिशीलनेन (प्रकरणरूपोपक्रमादिविचारेण) युक्तिभिः (पूर्व्वपूर्व्वाचार्य्यसिद्ध युक्तिभिः) श्रुतिभिः (समानप्रकरणस्थ-संवादिश्रुत्यन्तरैः) च सदद्वैतेन (अद्वितीय-सत्तात्मस्वभावेन परमात्मना) समानयेत् (संयोजयेत् तात्पर्य्येण संघटयेदिति यावत्) सः (पूर्व्वोक्तः) तटस्थ-लक्षणसंग्रहः एषः (एवम्प्रकारः); तत्फले (तस्य वर्णितस्य जगद्विवर्त्तोपादानकारणत्वरूपतटस्थलक्षणस्य फले प्रयोजने) खलु (निश्चये) लक्ष्यसत्त्वपरिच्छिदात्रयवारणे (लक्ष्यस्य ब्रह्मणः सत्त्वं परमार्थसत्यता देशकालवस्तुकृतत्रिविधपरिच्छेदस्य वारणं च) ॥ २७ ॥

III. **English Translation.**—In the previous way in the other parts of the *S*ruti also, the passages about the creation (of the universe) are to be connected with (*i.e.*, taken to signify) the Existent, Secondless Brahman by considering the chapter (*i.e.*, the context) &c., by arguments, and also by comparing parallel passages in the other *S*rutis. Thus ends the statement of the Tatastha Laksha*n*a*). The result of this is two-fold: one —(the establishment of) the supreme reality of Brahman, and the other— the denial of the limitations of space, time and things (with reference to it). (1).

IV. **Explanatory Notes**:—

(1). Limits are set to a thing either by space or by time or by some other object. But any of these limitations is impossible to the Brahman. Says the Panchadas*i*, "न व्यापित्वाद्देशतोऽन्तो नित्यत्वान्नापि कालतः । न वस्तुतोऽपि सार्व्वात्म्यादानन्त्यं ब्रह्मणि त्रिधा ॥" As Brahman pervades all space, no end or limit can be set to It by space, neither can we fix any limit to It by time, inasmuch as It exists in all time, nor by any object as It is present in

* For an explanation of the phrase, Tatastha Laksha*n*a, see note (1) appended to *S*loka 15 Dawn, Vol. IV, pp. 89-90.

all things Therefore the infinity of Brahman is manifested in these three ways.

सच्चिदद्वयसौख्यरूपममुष्य वास्तवलक्षणं
नानृतेऽस्फुरणेऽसुखे पुरुषार्थतेति तदात्मता ।
वारणीयविधाप्रकल्पितभेदलब्धपदैः पदै-
र्नैकरस्यहतिस्तथैव हि साधु पूर्वमवादिषम् ॥ २८ ॥

I. Context.—Of the two Lakshanas or definitions, the Swarupa is the result or the goal in view for realisation and the Tatastha is the means for realising it. After fully explaining the Tatastha Lakshana the author now takes up the Swarupa Lakshana.

II. Paraphrase.—अमुष्य (ब्रह्मणः) सत्-चित्-अद्वयसौख्यरूपं (सत्यज्ञानानन्दस्वरूपं) वास्तवलक्षणं (स्वरूपलक्षणं)। (यतः) अनृते (असत्ये), अस्फुरणे (परोक्षे) असुखे (सुखभिन्ने च वस्तुनि) पुरुषार्थता (पुरुषाभिलाषविषयता, पुरुषाणां प्रार्थना) न (भवति) इति हेतोः (ब्रह्मणः) तदात्मता (सत्यज्ञानानन्दस्वरूपता) (स्वीकार्या इति शेषः)। वारणीयविधाप्रकल्पितभेदलब्धपदैः (वारणीयाः निषेधनीयाः याः विधाः प्रकाराः असत्यत्वादयः ताभिर्हेतुभिः निषेध्येषु कल्पितभेदैः लब्धपदैः लब्धावकाशैः) पदैः (सत्यादिपदैः) ऐकरस्यहतिः (ब्रह्मणः एकरसत्वहानिः) न (भवति), हि (यतः) तथा एव (उक्तप्रकारेण एव) साधु (सम्यक् यथा स्यात् तथा) पूर्वं (चतुर्दशश्लोके) अवादिषं (उक्तवान्)॥ २८॥

III. English Translation.—The definition of Brahman as Existence, Intelligence and Bliss is the Swarupa Lakshana. Because there can be no desire on the part of anyone to realise a thing that is not true, visible or blissful, therefore Brahman must be so. Though the words (Existence, Intelligence and Bliss), being used to contradict the presence of falsity, grossness and sorrow in the Brahman seem to signify difference (*i.e.*, three different entities) still there is no detriment to the oneness of Brahman; because this point has been well explained previously (in the fourteenth *S*loka of this chapter).

IV. Explanatory notes :—

We find that the qualities of falsity, grossness and unhappiness exist in everything in the world ; therefore the query might naturally arise in our mind, as to whether Brahman also is limited by them or not. Hence, in order to contradict them about Brahman, it is necessary to say that Brahman is not false, therefore true or existent ; not gross, therefore intelligent or self-manifesting ; not sorrow therefore bliss. And though in our everyday experience the qualities of falsity, &c., are perceived by us separately, it does not follow that Brahman also is three-fold ; for in truth Existence,

Intelligence and Bliss signify the same thing, *viz.*, the one and indivisible Brahman, only they seem to us to be different. This will become clear from the 14th *S*loka (for which see ante, Dawn, Vol. IV, Pp. 87-88).

सत्यत्वं तस्य सौक्ष्म्यान्नभस इव जगन्नीलिमाधारभावा
द्व्यावृत्तेरवृत्तेरखिलहतिसिततया सर्व्वबाधावधित्वात् ।
निःसङ्गत्वाविरोधात् सकलगततयात्मत्वतः साक्षिभावा
दन्यद्रष्टृनिषेधात् स्फुटवचनशतैः स्वानुभूत्या च सिद्धम् ॥ २६ ॥

Context.—After establishing Brahman as Existence by quotations from the *S*ruti, the author now goes on to establish the same by arguments.

Paraphrase:—तस्य (ब्रह्मणः) सत्यत्वं सिद्धं, (कस्मात्?) सौक्ष्म्यात् (परमसूक्ष्मत्वात्, कारणत्ववत्सूक्ष्मत्वस्य तत्रैव विश्रान्तेः), नभस इव (तस्य) जगत्-नीलिमाधारभावात् (यथा नभः मिथ्यानीलत्वाधारत्वात् सत्यम् तथा जगद्रूपनील-त्वाधिष्ठानत्वात्), अव्यावृत्तेः (सर्व्वत्र अनुवृत्तेः), अवृत्तेः (कुत्रापि अस्थितेः आधेयतारहितत्वात्) अखिलहतिसिततया (सर्व्ववस्तुप्रकाशकत्वेन), सर्व्वबाधावधित्वात् (अनवस्थाभिया यत् सर्व्वबाधावधि तदेव ब्रह्मेति तत्त्वात्), निःसङ्गत्वाविरोधात् (ब्रह्मणः निःसङ्गत्वस्य सत्यत्वेन सह अविरोधात्), सकलगततया (सर्व्वव्यापि-त्वेन), आत्मतः (आत्मत्वात् सर्व्वस्य कालादेः), साक्षिभावात् (सर्व्वसाक्षित्वात्), अन्यद्रष्टृनिषेधात् (श्रुत्या ब्रह्मान्यद्रष्टृनिषेधात्), स्फुटवचनशतैः (व्यक्तवचनशतैः, सत्यपदघटितश्रुतिभिः), स्वानुभूत्या च ॥ २६ ॥

English Translation.—The existence of Brahman can be established by the following arguments:—(1) Brahman is the most subtle; (2) It is the substratum of the world just as the sky is of bluishness; (3) It is inseparable (from anything in the world); (4) It is not contained in any-thing; (5) It manifests or reveals the whole world; (6) It is the finality of all negation; (7) It has no attachment and this is not inconsistent with its existence; (8) It pervades everything in the universe; (9) It is the spirit or the inmost essence of everything; (10) It is the observer or witness of everything; (11) the existence of any other observer is denied in the *S*ruti; (12) there are hundreds of very clear and explicit statements (in the *S*ruti about the existence of Brahman); (13) and also Its existence is proved by self-perception.

DYSPEPSIA IN CALCUTTA.

[*Concluded from page 160, Vol. V.*]

(3) A third source of the malady of dyspepsia is inattention to the manner of taking food. We take our meals hurriedly and care-lessly, quite in the midst of hard work. This remark applies mainly to

the members of the student community who form by far the majority of dyspeptics, and it is a fact that many elderly people contracted the disease during their student life. It often happens that while youngmen are deeply engaged in some branch of study, they are suddenly called away to take their meals, which they finish as quickly as they can, and then go on with the same study which they have left. Even in that short time when they actually take their food, they would be thinking over the 48th Proposition of Euclid, or Cæsar's description of Gaul, or curiously enough the œtiology of Dyspepsia, while their hands were mechanically plying between the mouth and the dish. The happy association and the relish for food which are so very necessary for a good digestion are often wanting in these cases. The boluses of food are swallowed all at once, *i.e.*, as soon as put within the mouth, and thus the *two important processes of mastication and insalivation* are in many cases omitted. The suitable condition of the stomach for taking a fresh quantity af food is frequently overlooked. Moreover, it is somewhat ludicrous that we often forget to take some water after a meal. All these are little things, but become great things when systematically done for a long time.

(4) The last but not the least important source is sexual abuse. Instead of the well-formed, vigorous and active country lads, we find here in Calcutta thin, devitalized and luxurious town boys who become sexually precocious, and indulge in their passions in ways far from legitimate. Such a condition is partly to be attributed to the circumstances under which they live, which are mostly absent outside the city. A mile's walk in any part of native Calcutta, or a day's visit to one of the many public entertainments can scarcely fail to excite some unhealthy amorous propensities in the frail, plastic mind. Hence, among the numerous unfortunate consequences of their folly, Calcutta youngmen find chronic dyspepsia a serious trouble of their life.

Within this category we may also include the disastrous spread of alcoholism. Side by side with the growth of civilization, we find an increase of grog-shops all over the country : and Calcutta, the centre of that civilization, also takes the lead in the matter of drunkenness.

(5) Want of bodily exercise, and sedentary habits are other powerful causes of Dyspepsia—a point upon which some attention has been lately bestowed. It is disgraceful that many of our youngmen should get exhausted after walking a distance of about half a mile!

Such are the various causes of the spread of Indigestion in Calcutta, which is aggravated by the thoughtless use of the so-called Patent medicines. Each one of these medicines is advertised as the one sovereign remedy on earth, perfectly able to root out the malady within a certain specified time; and this is attested to by a brilliant list of admirers all over the world. Misled by this kind of advertisement the poor dyspeptics fly hopelessly from Alpha's Pills to Beta's Syrups; but owing to a belief that the disease is beyond the powers of a doctor, they never consult a Physician *systematically*; or if they do consult at all, they *do not follow up the prescribed hygienic precuations* for the necessary length of time.

A DYSPEPTIC.

INFLUENCE OF MIND ON CIRCULATION: ITS BEARING ON GYMNASTIC EXERCISES.

To settle a moot point among physiologists—whether the centre of gravity in the human body is affected by changing the position of the arms, and also to determine where the centre of gravity is in a horizontally placed human body—Dr. William G. Anderson, of Yale University, began a series of exhaustive experiments in the University Gymnasium several months ago. Several college students, all of them athletes, were the subjects who aided him. In the course of the experimentation and to facilitate the investigation, Dr. Anderson invented an apparatus which in appearance suggests a surgeon's operating table, balanced in the middle. Incidental to the main investigation, Dr. Anderson has been led to study other points in physical development, and collaterally has verified what Dr. Angelo Mosso, of Turin, Italy, thought he discovered several years ago when he announced that he believed that *under mental excitement there is a rush of blood circulation to the brain* so great that, if the body is placed horizontally the head will sink, or tend to sink. This, Dr. Anderson says, is true, even when the excitement is so slight as the solution by mental processes of the simplest problem of addition, subtraction or multiplication. Remarkable instances of the sort have been found when Dr. Anderson has balanced his students on his apparatus to which he has given the name of the "muscle board." before written examinations, taking the readings on the board, and has balanced them immediately after the written examinations, noting the difference in the readings on the board.

CENTRE OF GRAVITY CHANGES.

After the mental efforts the centre of gravity changed from a sixteenth of an inch to almost two and one-half inches. This shows extra circulation in the upper-extremities. It has even been found that mere *thought will send a supply of blood to parts of the body* in extraordinary quantities. A man balanced on the "muscle-board" will find his feet sinking if he goes through mental leg gymnastics, but does not make the movements. It is in some of the experiments of this nature that students of the psychological phenomena have found *data* to study also. Dr. Anderson said on this point:—"I have found that men who exercise in a listless, automatic or mechanical manner do not change the centre of gravity to a great extent, but in nearly every case when a man takes his special series of movements in a conscious or highly volitional manner, the supply of blood to the arms or legs was very noticeable and the line of gravity went up or down markedly."

MIRRORS ARE AN AID.

"If two men exercise the arms and thorax taking the same exercises, one standing before a large looking glass, the other not, the former will show a higher centre of gravity than the latter, indicating a richer blood supply to parts. This is merely another illustration of conscious *versus* mechanical methods of exercise. A knowledge of that point would change methods in some gymnasiums possibly. An interesting result of these experiments has been to throw new light on our knowledge of blood supply to the legs in sprinting or short distance running. The belief prevails that in short distance running there is a noticeable blood supply to the legs. The tests conducted with the "muscle board" seem to prove the opposite. In nearly every case the centre of gravity has risen after short runs, showing that the blood has been pressed out of the large leg muscles by rapid and forceful contraction. Recently I have experimented with exercises that subjects found agreeable and those that they found disagreeable to perform. The *movements in which they found pleasure sent a richer supply of blood to parts than did those movements which were not to their liking.* The plythysmograph shows that pleasurable thought sends blood to the brain; disagreeable thoughts drive blood from the brain."

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THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—*SANKARA.*

WHOLE NO. LVII. | *CALCUTTA, APRIL, 1902.* | No. 9. VOL. V.

PHILOSOPHY OF THE GODS.—II.

In my first article on this subject in the January number of the "*Dawn* (Vol. V.)" I endeavoured to make out that the Devas (gods) are no more abstractions, personifications, figures of speech or even attributes of the Deity but are separate entities being the intelligences belonging to and functioning in the 'Swar' region—the spiritual plane of the universe and being intermediate between human beings and the supreme Logos. I next referred to the universality of the belief in the Devas and shewed that all the great religions of the world took for granted the fact of their existence. In the present article, I propose to discuss first, the grades and classes of the Devas and then deal with the vexed question—whether the Devas are formless or endowed with forms, reserving for future treatment the other questions connected with the subject, *viz.*, whence are the Devas recruited, what are their functions in the divine providence of nature, and lastly what is the relation between the Devas and Iswara—between the gods and the Logos.

The ancient seers of India divided the universe into seven planes and confining their attention to the solar system or the cosmos with which we are directly concerned, they spoke of its seven regions or *Lokas*, naming them *Bhur*, *Bhubar*, *Swar*, *Janar*, *Mahar*, *Tapah* and *Satya*, which terms have been translated as the physical, astral, mental, spiritual, Nirvanic, Parinirvanic and Mahaparinirvanic planes. Each of these planes is material in its constitution; that is, formed by the aggregation of *Prakriti* or matter. The matter of the astral plane is finer than that of the physical; and as we go up higher and higher from plane to plane, the matter becomes finer and less dense until we reach the *Satya Loka*, where the matter is of the finest and rarest, in composition. Now each of these seven

planes is sub divided into seven sub-planes; so that we have altogether 49 sub-planes. For instance, in the physical plane we have matter in the states of solid (kshiti), liquid (*Apas*), gaseous (*Tejas*), etheric (*Vayu*), finer etheric (*Akasha*), finest etheric (*Anupadaka*) and atomic (*Adi*). Thus, solids (*e.g.*, ice) may be raised first to the liquid condition and then changed into vapour which is in the state of gas. Orthodox science does not admit the possibility of raising gases into the etheric state. But we are taught that gases may be broken up and raised through the etheric conditions to the atomic state. A physical atom is physical matter in its rarest condition and if broken up it will yield not physical but astral matter. Similarly with the astral and the other five planes, each has its several sub-planes of solid, liquid, gas, ether, finer ether, finest ether and atom.

Now we are all aware that physical plane or *Bhur Loka* is tenanted by various classes and grades of living beings (*Jivas*). Putting aside the vegetable kingdom, we have the animal and human kingdoms with their various divisions and sub-divisions—insects, reptiles, fishes, birds, mammals, etc. Not to speak of the individuals, the genera and species are, so to say, innumerable. At the same time we find that some species take more kindly to one sub-division of the physical plane than to others. Thus, a fish is in its element in water, a bird in air and a horse in firm land. Is it reasonable to suppose that all the regions of the cosmos other than the physical are untenanted, are empty of living beings? This would be an extremely unreasonable supposition. Our sacred books teach us that every region of the universe is inhabited by *Jivas* possessed of appropriate vehicles—bodies composed of the matter of that particular plane, which enables the *Jiva* to function therein, in the same way as we are able to function in the physical world through our physical vehicles. The astral world or *Bhubar Loka* is the habitat of nature spirits, and elementals. The Heaven world, or *Swar Loka* is inhabited by the lower Devas or angels. The *Janar Loka* and the other higher regions are tenanted by the higher Devas (the Arch-angels, the Dhyanachohans of the Buddhists). So that no region is empty of living beings.

Coming next to the grades and classes of these beings we have, first of all, the broad division of the Hindu Scriptures into *Devas* and *Devayonis*. The Devayonis are sub-divided into 8 classes—the Yakshas, the Rakshyas, the Gandharvas, the Kinnaras, the Apsaras, the Pishachs, the Guhyakas and the Bidyadharas. These

correspond to the Salamanders, Fairies, Gnomes, Nymphs, Satyrs, Nereids, etc., of medieval Europe and of classical mythology and the Peries and Jins of the Mahomedan books. The Buddhist calls these the Kama Devas. The Rupa-devas of the Buddhists are the lower Gods—the *Devatas*, inhabiting the *Swar Loka*, and the higher Gods—the Devas of the Vedic mythology for instance correspond to the *Arupa Devas* of the Buddhists. The Janar and higher Lokas are peopled by the *Adityas*, the *Vasus*, and the *Rudras* along with the *Kumaras*, the *Prajapatis* and the *Siddhas*, concerned respecrively with the creation, preservation and dissolution of the cosmos. Higher still come the regents (Lokapalas) the Lipikas (recorders of karma) the Maharajas and the Dhyanachohans.*

As above so below; as below so above. We have seen that the species and genera of the living creatures inhabiting the physical world are, so to say, innumerable. We may take it that such is also the case with the various grades and classes of Jivas whose habitat is the astral and other higher planes. In this view the Hindu enumeration of these beings at 33 crores would seem to fall rather short of the mark.

We are taught that each of the seven regions of the cosmos is in the charge of a great God. Seven, therefore, is the number of these gods, who rank just below the *Trimurti*. These are the seven spirits that are before the throne of God, spoken of by the Christians and the Seven Ameshaspendes of the Zoroastrians. The Hindu scriptures generally speak of five,—Indra—the lord of Akasha, Vayu—the lord of air, Agni—the lord of fire, Varuna—the lord of water and *Kuvera*—the lord of earth But sometimes the number seven is spoken of. "Each of these great Gods, has under him a host of subordinate gods who carry out his decrees.† As pointed out in the Chhandogya Upanishad, the Divine Government of the world bears close analogy to its human government. At the head of all we have the supreme Ruler. Under him we have Viceroys in charge of different countries. Each Viceroy has subordinate to him, provincial governors, who are assisted by magistrates in charge of districts and these latter have under them sub-divisional officers and so on. In the same way, we have at the top of all, Maheswara or the Supreme Logos. Under him we have the Logii of the various solar systems who are the Iswaras. Each Iswara has under him the seven great gods we have been speaking about, each having under him a host

* See on this subject C. W. Leadbeater's "The Astral Plane," pp. 62-6.

† Annie Besant's "Evolution of Life and Form," p. 55.

of subordinate gods who carry out his decrees. Thus, there are hierarchies of intelligences, grade after grade, class after class, rank after rank, reaching from the lowest elemental to the great planetery Logii forming a perfectly graduated ladder from the humblest to the highest. Thus we find that the system of spiritual government is really the archetype of the government down here.

Are the gods formless or endowed with forms? It is clear that they do not normally use a physical body; but we find numerous passages in the scriptures which warrant us in believing that each god uses an appropriate vehicle composed of the matter of that plane of the universe in which he normally functions. The Vedic hymns contain many *mantras* ascribing forms to the gods. The same is also the teaching of the Vedanta; and the great Sankaracharya in his commentary on the Brahma-sutra 1—2—29, explicitly speaks, for instance, of Indra having a *form*, thus "Indronama Kaschit Bigrahaban Deva." Again, in his commentary on 3—1—27, he speaks of the gods, having power to manifest themselves in manifold forms at one and the same time, creating for that purpose what is called "*Kaya*-byuha." It would thus seem that the Devas have their favourite forms but can change them at pleasure and assume what form they please. We will now understand, why it is said of Indra, "Aka Indrah Pururupa *iyate*"—the self-same Indra takes manifold forms. This may, at first sight, seem opposed to the view of the founder of the Mimansa Philosophy —Jaimani, who is credited with the opinion that the Devas do not exist apart from the mantras ("Mantratmaka Devata"). So far as I am able to make out, this implies that when a particular mantra sacred to a particular Deva, is recited, the vibrations, so set up, create in the higher planes, a special form which that god ensouls for the time being. However that may be, it would be admitted that if after all, Jaimini should be held to entertain views, opposed to the clear teachings of the Vedanta, we shall know whom to follow.

Some of the forms of the higher Devas which are favourite forms with them or are normally in use, having become visible to some of the great Rishis, who had developed spiritual vision, were traditionally handed down from ancient times, and have been preserved in stone, or metal or pictured in some of our sacred temples. They are not imaginary or allegorical as is sometimes supposed or even mainly symbolical, but were actually seen by some of the great Rishis who transmitted them down the ages for the good of humanity. But we must not suppose that these forms are in any way exhaustive, the fact being that their forms are many and various.

As we have said under ordinary conditions, the Devas are not visible to physical sight; but they have the power of creating any vehicle that may be needed for carrying out their purpose in a lower plane and also of materializing themselves when they wish to reveal themselves on the physical plane.

The Scriptures record numerous instances of the Devas transforming or materializing themselves with ease and rapidity; thus taking any form at will. The matter of the astral and the mental plane that is of the "Bhubar Loka" and the "Swar Loka" is so plastic that it may, without difficulty, be manipulated by the Devas to clothe themselves in any special form, at their pleasure. So it is said that a Deva is not limited to a particular form.

Thus, we read in the Mahabharata that the god Dharma assumed the form of a dog, to tempt Yudhisthira when he was about to mount to the celestial regions. The story of the pigeon and the falcon is also well known. We read in the Ramayana that when Ramachandra visited the hermitage of the sage Sutikshna, he met there a luminous figure who was no other than Indra.

The annals of other nations contain similar records of the Devas having manifested themselves, and the epics of ancient Greece and Rome are full of such incidents, which, it would be wrong to dismiss as superstitious hallucinations.

It is unreasonable to object that, because the Devas are not visible to us normally, therefore they must be formless. The same line of reasoning would lead us to reject the atomic theory as a *chimera* and the existence of the ether as suppositional. As I have said, there are cases on record when a Dheva materialized himself and was thus visible to the physical sight. In fact, in the past they showed themselves continually among men and carried on their work, as it were, in the full blaze of day.* But in this age of unbelief, if we wish to see the gods we must rise by yoga to their plane. We must in fact extend the range of our vision; for what is vision after all but the power in us to respond to external vibrations. Why, for instance, are we unable normally to see the ultra-violet rays, or to hear the half tones of music? Simply because our power of response is limited within a given range. If by any means, we could improve this power or extend its range, sights that are at present invisible to us and sounds that are now inaudible to us, would become matters of common experience. So with our vision of the gods. Sight in every

* "Life and Form," p. 53.

plane depends upon the instrument of vision, and varies with its power and adaptability. Develope the spiritual sight and you will be face to face with the gods.

That our powers are susceptible of development admit of no doubt. Some people are colour-blind, which means that they are unable to respond to a particular class of vibrations. We know that certain species of hunting dogs are able by means of their extraordinary sense of smell to track the footsteps of their prey. Speaking of mental powers the difference of intellect between an esquimo who cannot count beyond two and a Cambridge Wrangler who revels in his Differential Calculus, is really immense; but it is, after all, the result of development. In the same way, if we could develope our power of vision so that we are able to respond to the minute vibrations of the higher planes which are now scattered about us, without evoking any response in us, the Devas would become as much visible to us as if they were trees and stones in the physical plane.

Speaking of the forms of the Devas, it may not be out of place here to draw the reader's notice to the etymological meaning of the term. *Deva* literally means "the shining one." This is with reference to the luminous matter of the "Swar" plane of which his vehicle is normally composed. The matter of this plane, as we know, is made up of, what is called by the Hindus "radiant atoms" (Tejash Tatwa). When seen, the Deva appears like a globe of light. This explains why in painting the figures of angles, the great masters drew a halo round their form. We may now understand why it is that the images of our gods and goddesses are shown with an auriole of light ("Chhata") about them. This is a reminiscense of actual vision of these glorious beings, these shining intelligences of the Higher planes.

HIRENDRANATH DATTA.

METHODS OF TRAINING YOUTHS IN ANCIENT INDIA—VII.

[*Continued from page 209, Vol. V.*]

For the history of the decay and revival the ancient Hindu methods of teaching with the rise and fall of Buddhism we have not to depend solely upon Buddhist books or the records of Buddhist travellers. For, on this point indubitable evidence is afforded by many Hindu works if we only investigate their subject-matter carefully, and this we proceed to do with special reference to Jaimini's

work. Though it may not be possible now to determine the time when Jaimini compiled the Mimansa *sutras*, we have ample proofs of the fact that they were at least compiled before the birth of Buddha. We do not propose to discuss here the date of Jaimini; for this has a very slight connexion with our present discourse, but we shall here discuss the informations about Hindu learning afforded by Jaimini's *sutras* as necessary to our purpose.

We get the following *sutra* at the very beginning of the third *Pada* (पाद) of the first chapter (अध्याय) of Jaimini's Dars*ana*.

धर्मस्य शब्दमूलत्वात् अशब्दमनपेक्षं स्यात् ।

If we carefully examine this sutra, we shall learn that in the days of Jaimini there were no Rishis in Hindu society who could reveal the Vedas. There were then no Rishis like Vasistha, Vyasadeva, Kanva, Visvamitra, &c., who could by virtue of their long-practised religious meditation (तपस्या) get the Vedic Mantras newly reflected on the mirror of their pure minds, and uttering them, determine the proper religious rites and duties. The then Rishis had to depend solely upon the memory of the older *Acharyyas*. They preserved in their memory what a certain *Acharyya* said about a particular religious rite on a certain occasion, which they edited in their own language and circulated in their community. In this way, they determined the religious rites and ceremonies and ways of life. In fact, the Vedic literature was very limited in its diffusion. No one was able to introduce any new word or line into the original Vedic sayings handed down from one generation of Acharyyas to another and passing current in society; while on the other hand, Hindu society was quite averse to adopting any other religious rites than those laid down in the Vedas. In such a state of things, when changes in time, place and society made changes in the ways of life necessary for the preservation of society, society had to fall back upon those *Acharyyas*, who were well-versed in the Vedas and social philosophy. In these *Acharyyas*, the society of the day had unbounded confidence; men firmly believed that they were proficient in all the Vedas, so that they did not hesitate in their belief that what those *Acharyyas* laid down as their duties was certainly enjoined in one or other unknown portions or branches of the Vedas. In this way, arose gradually the *Smriti Shastras* in ancient India which in time grew to be one of the principal Shastras. The study of the *Smriti Shastras* soon came to be reckoned as important and necessary a study as that of the Vedas. In this way, were widely circulated in the country the *Samhitas* of Manu, Yajnavalkya, Atri, &c., and the Hindu youths

were obliged to take to the study of the Dharma *sastras.*

But according to the inevitable laws of the growth of society, there was in ancient Hindu society a certain conservative section which governed and led that society. The *Acharyyas* of this conservative but ruling class saw that with the gradual diffusion of these Samhita works of a new kind in the country, society must needs admit many new manners, customs and ways of life, the inevitable result of which would be that society would lose its regard for its ancient manners and customs. This the *Acharyyas* could hardly bear to see. They accordingly in one voice took to protesting against the admission and the spread of any customs in society which were not to be found in the Vedas; made the Vedas the sole test in the matter of rites and ceremonies; for, to depend upon any other human words than those of the Vedas for the determination of the truths of religion would, to their minds, lead to the downfall of the Vedic religion.

If we again direct our attention to the above-mentioned *sloka* of Jaimini, we shall find no doubt as to the existence of a strongly divided opinion upon the selection of the proper books for study. I shall now discuss the *sloka* which Jaimini composed with a view to contradict the opinions of the conservative class and point out the true tests for the acceptability of a religious work. The *sloka* stands thus:—

"अपिवा कर्तृ सामान्यात् प्रमाणम् अनुमानं स्यात् ।"

(Jaimini Sutra, Adhyaya 1, Pada 3, Sutra 2).

The meaning of this is that since those who follow the lines of action laid down by the Vedas religiously follow also those laid down by the *Smriti Shastras,* the latter must be regarded worthy of acceptance. Although they are not direct or first-hand proofs, yet they lay down nothing but what is to be found in one or other branch of a Veda which has come to be extinct for various causes.

What may we understand from the above *sutra* of Jaimini? We learn that to deterimine our proper action we must first of all look at the manners and customs prevalent in the country; that we should observe those cutoms which the whole country follows unhesitatingly; that if the majority of the learned *Acharyyas* who are well versed in the true Vedic lore decide in favour of a custom not contained in the Vedas, society must adopt it.

This conclusion of Jaimini should be adopted not by the Hindu society alone to which it directly applied, but to all the civilised societies of the world, for it is the only means of progress. And it is my firm conviction that so long as the Hindus followed this

healthy social maxim, so long Hindu religion and Hindu society showed signs of continual progress and prosperity.

With the gradual introduction, in this way, of new subjects, into the field of ancient studies, began the growth of such subjects, as the Puranas, Astrology, Mathematics, the Yoga-shastras, &c., fruitful of important truths. It was about the time that Buddhism arose as a cloud to darken the bright prospects of Hinduism. Then were stopped all entrance of new light from new revelations and it became the sole aim of the leaders of society anyhow to preserve the ancient social customs and the all-in-all Vedas of Hinduism. At that time, the Hindu social leaders discarded as not of Vedic origin all those customs which destroyed the distinction between a Hindu and a Buddhist and without any the least hesitation excluded from the curriculum of studies all those Smritis which were held in contempt by the hostile Buddhists as evincing proofs of avarice, deceit or ignorance.

[*To be continued.*]

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THE DATE-SUGAR INDUSTRY IN JESSORE: PROCESSES OF MANUFACTURE OF THE SUGAR.*

The manufacture of sugar from date-juice is the principal industry of Jessore. The impression with which the careful observer leaves the country after a few miles' travel, is that the soil of the country is peculiarly adapted to the growth of trees of the palm type and specially of the date-palm; or at any rate, the cultivator of Jessore knows how to manage the tree properly. And considering the ease with which sugar is manufactured from date-juice, the reason why the people take to this industry in such large numbers, is not far to seek.

Before proceeding to describe the actual processes by which sugar is manufactured from date-juice, a few words on the nature of the tree may not be out of place. The tree as already alluded to belongs to the palm family, and has an erect cylindrical trunk, a foot or so in diameter. The height of the tree varies with its age and environments; but the average height of a tree twenty to twenty-five years old may be taken as eighteen feet.

As in many parts of India, the date-palm grows wild in Jessore; but trees growing without cultivation do not yield so much or such

* This paper was read at a meeting of the "*Dawn Society, Calcutta,*" in February last, and is an original contribution to the subject it discusses.—*Ed. D.*

good juice as properly cultivated trees. The most favourable soil for the growth of the tree, (technically called Roshpaňta) (रसपान्ता) is one in which the sandy and clayey elements occur in about equal proportions.

When the tree is about five years old, it is fit for yielding juice. This juice is however comparatively poor in sugar. The sweetness of the juice increases with the age of the tree. I have not received any satisfactory answer as to the number of years for which a tree continues to yield juice. Roxburgh in his Flora Indica puts it as twenty to twenty-five years.

About the middle of September, the lower leaves of the tree are cut off and a portion of the skin near the apex, is removed. It is then allowed to dry; and after five or six days, another slice is removed from the already injured surface. The juice trickles down a groove and is conducted by means of a semi-circular tube into the collecting pot. This operation goes on to about the middle of March.

Generally the tree is cut once a week and is allowed, besides total rest for four days. The collecting pots are changed twice daily, morning and evening.

The quantity and quality of the juice collected on the first night after cutting is different from that obtained on the second and still more from that obtained on the third, after which the juice ceases to flow. This fact has a very important significance in the manufacture of sugar as we shall presently see.

The main thing in connection with the manufacture of sugar is the separation of the solid portion from the liquid by crystallisation. It is found that if the juice obtained on the first night be boiled down to a syrup, crystals are readily formed. But crystals do not readily separate out from the syrup obtained from the juices collected on the second and third nights or even from a mixture of all three. In order to obtain the crystals, it is necessary to boil into syrup the first and the mixture, of the other two separately and then to mix them up. It will be necessary to add that the juices collected during the day-time become turbid on account of heat and the action of the sun's rays. They are either fermented into toddy or boiled into an inferior kind of molasses which is not or cannot be used in the manufacture of sugar. To prevent the juices collected during the night from undergoing fermentation, the collecting pots are carefullly washed and smoked.

Having obtained the syrup, the manufacturer proceeds to the preparation of sugar. In a majority of cases however the manufacturer does not prepare the necessary quantity of syrup but purchases it. Four kinds of sugar are manufactured in Jessore. I shall take them one by one.

(1) If from the syrup large quantities of crystals have separated, it is put at once into an earthen tub perforated in the bottom and covered with "*pata-shyala*" (पाटा शेओला), a kind of grass-like plant growing in water, belonging to the germs Vallisneria. The mother-liquor is collected in another vessel placed underneath, and set apart for the time being. After four or five days, the "*pata*" is removed and the upper layer of the crude sugar which by this time has assumed a brownish white appearance is scraped off. A fresh layer of *pata* is put and the operation is carried on until the whole of the sugar has been purified. It is then dried in the sun and beaten up and is ready for use.

(2) If the quantity of crystals in the syrup be not very large, as is usually the case, it is put into baskets made of bamboo. When the mother-liquor has been removed, it is refined by the usual process. The sugar thus obtained is known as basket sugar. There seems to be little or no difference between these two processes; only an earthen tub is used in one case, and a basket in the other. In the samples, I have been able to collect, sugar No. 2 is a little browner than sugar No. 1. Whether the basket is responsible for this, I am not in a position to say.

(3) The mother-liquor (from whatever source obtained) and the impurities, obtained in subsequent operations, are boiled in iron vessels. A small quantity of crystals is added to the liquid and the mixture is thoroughly stirred. It is then poured into earthen jars buried up to the neck in the ground and covered up. After eight or ten days, crystals are again formed. The whole mass is then taken out of the jars poured into gunny bags and thoroughly strained. The crystals that remain inside are refined by the usual process. The semi-fluid substance which runs off is again boiled and mixed in the proportion of eighty to one with "Kat" (काट) or the sediment which falls to the bottom of jar in which mustard oil had been kept. In this way, another variety of molasses is formed which mixed up with chopped tobacco-leaves forms the favourite Indian smoking mixture. A cartman told me that in some parts of the country this substance is used along with mortar in the construction of arches.

(4) In this process the syrup is mixed with water and boiled. As the boiling proceeds, small quantities of milk and water are added. The albumen in the milk coagulates and carries up mechanically the impurities of the mixture which can be easily removed. The liquid is then filtered and boiled till it has its original consistency. Afterwards it is "purified" by the usual process.

From ten seers of juice, one of molasses is formed; and from four of molasses, one of pure sugar. The average produce of a tree is, according to Roxburgh, about four seers of sugar annually.

It will be seen from the above that the processes employed in the purification of the crude sugar are rather complicated and laborious. A good deal of improvement is possible in this direction. If the manufacturers can be persuaded to use powdered animal charcoal as de-colourizer, much labour and time will be saved. But we must not forget that date-sugar is largely consumed in the villages and it will be long before our brethren in the villages would be willing to use sugar polluted by contact with charcoal obtained from the bones of animals, sacred or otherwise.

Mr. Haridas Chatterji, M.A., B.L., of Khandwa, C. P., is going to experiment on a centrifugal machine. We await anxiously the results of his experiments. But there are great difficulties in the introduction of the machine in this country even if it prove useful. The village sugar-manufacturers are poor, most of them. Time and labour is not so much a question to them as hard cash. Again, as Mr. Chatterji apprehends, it is likely that the centrifugal machine will not work satisfactorily (if it works at all) with molasses as now prepared, which is more or less a viscid stuff. In that case, the modes of preparation of the molasses will have to be modified accordingly. A variety of such and similar questions have to be faced in the introduction of any sort of improvement.

Date-sugar manufacture has almost ceased to be very profitable. Cane-sugar manufacture is also in the same predicament. Home-made sugar can scarcely hold its own against the imported beet-sugar.

There is another quarter from which danger is apprehended. The drawing off of the juice is a very exhausting process. No one looking at a tree which has not escaped the hands of the farmer (very few trees do), can deny this. The leaves are drooping and have an unhealthy brownish or redish-brown appearance and the fruit consists almost entirely of a stone and the skin. The trunk of the tree has also a miserable cork-screw-like appearance for the cut-

tings &c., made at one place in one year and at another place on the opposite side, a little higher up in the next. In Jessore, the date-gardens are filled, hoed and manured. I have good reason to believe that the trees do not receive so much attention anywhere outside the district. I should like to be contradicted. The future of the date-palm in India and consequently of the date-sugar industry appears at least, to be very gloomy.

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AN EXAMINATION INTO THE PRESENT SYSTEM OF UNIVERSITY EDUCATION IN INDIA AND A SCHEME OF REFORM.

INTRODUCTORY.—I.

Lord Curzon, in his last Convocation speech, made the remark that "the great fault of education as pursued in this country is that knowledge is cultivated by the memory instead of by the mind." His Lordship further said, "Education is a very different thing from instruction," and that "knowledge is not a collection of neatly-assorted facts like the specimens in glass-cases in a museum;" and further, "what you have to do is not to stuff the mind of the pupil with the mere thoughts of others, excellent as they may be, but to teach him to use his own. One correct generalisation drawn with his own brain is worth a library full of second-hand knowledge." "If the object of all teaching," His Lordship pointed out, "is the application to life of sound principles of thought and conduct, it is better for the ordinary man to be able to make one such successful application than to have the brilliancy of a Macaulay or the memory of a Mezzofanti."

There is no doubt that the Calcutta University has, by a system of examinations which leaves very much room for improvement, indirectly encouraged cramming, and has to a very large extent justified the remark of the Chancellor that knowledge is, under the auspices of the Indian Universities, cultivated by the memory instead by the mind. If the Chancellor should care to look over some of the examination-papers of the Calcutta University for the Degree Examinations, or even for the Premchand Roychand Examinations, specially in the literary subjects, he would find that in almost every instance the questions were set, not to test the scholar's *own* extent of reading or powers of observation, criticism and generalisation, but the object, generally speaking, seemed to be merely to examine his knowledge and familiarity with the texts of the books prescribed or suggested. The reaction of a system of examination as above described upon Indian collegiate teaching even for the higher degrees is evident. The Indian system may and does teach and reward industry and application, and may be an admirable training for the clerkship (although here people

are found to differ in opinion), but it leaves the student after a five years' course as helpless in the matter of original thought and work as on the day when he entered the University. The Indian students, used to examinations of the kind I have described, have an unusual knack of picking up in very short time indeed, just the information suited for their examinations, from an analysis or tutor's note-book, and forget much in a few days. And the Indian University "paper-setter" is no match at all for the Indian College Student and the College—"Professor." In some instances, the silent competition between the "paper-setter" on the one hand, and the "Professor" and the student (who are naturally and generally found ranged on the same side) on the other, as to who is able to get the better of whom, is carried to such extreme lengths that the former in order to survive the contest yields to the temptation of picking out things not generally known, and minute details which every wise man is content to leave to be looked up when he wants them. The result is that a kind of artificial knowledge solely for use in examinations,—Lord Curzon's "collection of neatly-assorted facts like the specimens in glass-cases in a museum"—this sort of knowledge, is encouraged or engendered. The Calcutta University paper-setter, for of him I have had opportunities of making some study, so manages his work, asks such questions that what the Indian teacher has to do is merely to stuff the minds of his pupil with the thoughts of others rather than to use his own. The *carrying* power of the higher class of Indian students, the "portative memory" as it has been aptly described, the power of getting-up or of *acquiring*, is very great. And although such power is not to be despised, it will, to quote Lord Curzon again, never "carry the student out of the ranks that follow into the ranks that lead." The Calcutta University system of examinations does not encourage or reward self reliance on the part of the student, on which the Chancellor lays so much stress; and naturally, therefore, not being taught to practise it, since the days of his preparation for the Matriculation, "when something happens that is not provided for by the regulations, or that defies all precedent, he is apt to find himself astray. He has not been taught to practise self-reliance, and therefore he is at a loss, and he turns to them for the guidance which ought to spring from himself." If "this is a fault," as the Chancellor points out it is, "against which the students of the University ought to struggle unceasingly;" it is clear that the Calcutta University by setting the wrong papers and placing before students a wrong standard of proficiency do not help the growth, but only stifle all honest attempts to learn and to teach, on the part respectively of the pupil and of the teacher. The function of the tutor, as has been well said, is to guide, suggest and supervise; the function of the student is to read, annotate, consult books of reference, and to write exercises. The tutor has to stimulate the energy of the student and bring out his latent capabilities, while the true student also stimulates the teacher and is in due

course able to take his place. If all this is true, the University examination system should be so devised as to bring to the front only such young men as have conformed to the above standard, and to place in a lower rank those who, unable to draw one correct generalisation with their own brains, are only full of second-hand knowledge. As things are, their positions are reversed, with the necessary result that all honest teaching is discouraged or discounted. The teacher does the work which the student should perform, and abdicates his true position. A system of examinations by the University would have to be devised *which would expect more of the student and would do more for him.* The efficiency of teachers is bound up with a right or wrong system of examinations. As the President of the Indian Universities Commission very well pointed out in his Convocation address (15th February, 1902):—"Even if the Universities ceased to be merely examining bodies, they will still continue to examine; we cannot dispense with the mechanical tests of the work done. But we are all conscious that in times past their tests have exercised a depressing influence on teacher and student. They narrow the mind of the student until he thinks only of percentages; they deprive the teacher of all initiative and independence in the choice of his subjects and in his manner of presenting them to his pupils."

Having shown myself in such complete agreement with the views of the learned President of the Universities Commission, I would in future articles go more into detail into the subject of University Examinations and try to suggest some remedies in as brief a compass as is consistent with clearness of exposition, for the evils to which I have sought to draw the reader's attention.

EDITOR.

II.

THE UNIVERSITY AND THE COLLEGE: HOW THEY ARE RELATED.

The principal feature of the older English Universities—of Oxford and of Cambridge—are the Colleges. Originally, however, the University was a community of men engaged in educational work, and a member was a *master*, *i.e.*, one who had found entrance into the body as a duly-licensed teacher, and as teaching Arts-subjects, was an M.A., a *master of arts*; while the stage of a *bachelor* was one of apprenticeship for the *mastership*. And the masters were distributed among the several *faculties* for the different branches of academic learning. Such was the original University, a community of learned men engaged in educational work, a close and select community of teachers. The second stage of the Universities was marked by the growth of the Colleges, which have in the end come in a manner to swallow up the Universities. In England, the Colleges have through their tutors and lecturers supplied nearly all the teaching of the Universities,

the lectures of the University Professors being, except in the case of the highest few among students, either supernumerary or ornamental. No sooner is a student admitted into a College, than he is assigned to a *tutor*, who throughout the student's University career has complete control over his work, advising him as to what books to read, what lectures to attend, etc., besides assisting him in his work. And the progress of the scholar is tested by each College at the end of the year, independently of the University, and if he fails, he is liable to a fine; while a second failure renders him liable to expulsion from the College. And such is the high tone of the Colleges and the moral control exercised by the tutors and the lecturers that a student as little thinks of changing his College as he would think of changing his name. Thus, it would appear that the Colleges are everything, and the University, as distinct from the Colleges, a very minor factor. Of late years, the Colleges have combined their forces and established a common system of lectures, so that there are at present (1) Inter—Collegiate lectures delivered by the various *Fellows* of the Colleges; and (2) University lectures delivered by Professors, University Lecturers, or Demonstrators. In this way, the Colleges have continually increased their teaching power, and have almost supplanted the University, or, more correctly, have almost swallowed up the University. The part which University Professors or Lecturers play is comparatively small; but there are the various University Laboratories, all centralised in the Museum, where Science-students do practical work, only one or two Colleges having laboratories of their own, which, however, are only free for their own students. We understand, then, wherein lies the strength of the English Universities; whence is the motive power which keeps in vigorous life the English University machinery. It is not so much in the University proper as in the Colleges. Now, the most important question for enquiry and decision is—what supplies the motive power to the academic work done under the auspices of the Indian Universities. Is it in the Colleges or in the University? Which is the supreme factor in the higher educational life of this country, the Colleges or the University? Undoubtedly the answer is—it is the University, not the Colleges, for the Colleges would collapse directly the University ceased to do its examining functions. The Colleges have not originated in and have not continued in their existence through, any *raison d'etre* of their own, but they have been conjured into being by the touch of the University. The University disappears and the Colleges also disappear, although they may take birth in other bodies. This, then, is the most important point of difference between the English and the Indian Universities. In the former case, the Colleges are practically the University; while in the last, the Colleges are but ephemeral products dependent for their very life on the life of the University. I have described the state of things as it is here; the University as a body influencing, directing and dominating the Colleges, by its system of examinations, and the

Colleges rearing their heads under the auspices of the University and fitted only to prepare candidates for the University periodical examinations. The Indian Colleges, in fact, partake more of the nature of coaching institutions than of teaching bodies. How to convert these multiplying coaching institutions into Colleges proper—into teaching bodies in fact,—is one of the prime questions for the Universities Commission to consider. When these Colleges have become teaching bodies, the Indian University would have, as of natural necessity, in the main become teaching in character; while in its corporate capacity, it might also, if necessary, supplement the efforts of the constituent colleges by providing extra and useful appliances in the common interest of the entire body of Colleges. The *creation* of a Teaching University, even if it were not financially prohibitive, would be a revolutionising process; but that such a University might evolve under proper conditions admits of very little doubt. Now, in India, the easiest and, perhaps, under existing circumstances, the most effective way of directing or moulding the course or character of studies at the Colleges would be through the door of the examinations. It is in these examinations, success at which is valued more than Collegiate training that the practical reformer would, in the first instance, seek to find the lever whereby to raise the Colleges. Is it or is it not a fact that the Indian University very largely influences or dominates Indian Collegiate teaching by the manner in which it discharges its functions as an examining board? Is it or is it not a fact that the character or scope of the questions set by it has hitherto very largely shaped and moulded the character or scope of the teaching imparted by the Colleges—has, in fact, determined the training given in those Colleges. If the answer to these queries is in the affirmative, then, the further question follows,—Is it possible or practicable for the University to lay down such tests, prescribe such qualifications, or devise such a system or style of examinations as shall beneficially react on Indian Collegiate teaching and ensure a proper training at the hands of the College authorities? In my humble judgment, the first or preliminary steps to Indian University Reform would consist in giving due importance to this question and endeavouring to find a right solution of it. For all reform must be slow building-up, and accordingly must proceed along the line of least resistance. And the main function of the Indian University being to examine, it stands to reason that it should not be subjected to radical or violent alterations, until or unless the methods of legitimate reform that are yet open to it have been tried and have been found wanting.

EDITOR.

III.

UNIVERSITY EXAMINATIONS: THEIR SCOPE AND CHARACTER.

Unlike the Colleges at Oxford and Cambridge, the Indian Colleges

are, in point of fact, though not in name, only coaching agencies, and I have pointed out that the process of development of the Indian University from an examining board into a teaching corporation would be through the conversion of the Indian Colleges into true Colleges or teaching bodies and training institutions. The difficulty of suggesting a scheme for the purposes aforesaid lies in the fact that, whereas true teaching or training of scholars at the Colleges would have to be kept by us in view as our real or direct object, we cannot, by the necessities of the case as applicable to our Indian Universities, proceed straight on and compass that object. In England the older Universities were from the very beginning educational, *i.e.*, teaching and training bodies, a community of masters; and as the Colleges arose, they arose as so many teaching bodies, whose efforts at teaching and training served only to supplement and strengthen the efforts of the Universities. *There*, both University and College aimed straight at one thing,—teaching. *Here*, both University and College have also kept before them one primary object, but that object unfortunately concerns itself only with examinations. It would thus appear that the primary work before the Indian University and the Indian Colleges being respectively the holding of examinations and preparations for such examinations, the work of teaching has come in not as a primary or direct factor, but only as an accessory, *i.e.*, incidentally or indirectly. The great historian E. A. Freeman was of opinion that, "every examination was itself an evil, as making men read not for the attainment of knowledge, but for the object of passing the examination, perhaps of compassing its pecuniary value." (*Nineteenth Century*, 1888, page 643.) If this is so, the evils of examinations are not minimised but only aggravated, if Universities and Colleges look, each in its own way, on examinations as its direct or engrossing occupation. Notwithstanding all this, the process of development of Indian Colleges into true Colleges and the eventual conversion of the existing examining boards into true Universities will have to be accomplished. We are not permitted to write on a clean slate; we cannot dislocate all existing arrangements by immediately demanding the impossible; we must see if the existing system is capable of improvement; and, not only so, we must see if taking advantage of the fact that examinations shape and direct the course, character, methods and scope of instruction at the different institutions, where candidates are prepared for such examinations: we must see if, having regard to this all-important circumstance, it is possible to devise a self-acting arrangement whereby the native antagonism between teaching and examinations may be smoothed down into friendship, and true teaching may receive an impetus through the compelling agency of examinations.

Recognising, then, for the future, examinations as a means and not an end, the end being the promotion of sound teaching and training,

the point for consideration and solution is—what should be the character of questions set by the Universities that would promote sound teaching; that would help and not hinder the true teacher; that would encourage the honest teacher and the genuine student in their efforts to nullify the efforts of the crammer and of the crammed? Hitherto the questions have been mainly of a kind that rewarded only industry and tested only the "carrying power"—the power of acquiring, of getting up—of the candidate. The questions have been, in too many instances, set to test the student's familiarity with the text-books prescribed; and, in very few instances, have they been such as tested the student's range of reading, powers of thought, of generalisation, of criticism, or original work in fact. Have the questions set in any appreciable number of cases, one may reasonably inquire, been such that the candidate at examinations finds it more paying to have reasoned-out, independent thoughts of his own; and less paying, if his business has been only with books? Is it true, as is sometimes alleged, that in most cases the questions set are such that the student is compelled to remain in a perpetual state of pupilage, and has only to read to recollect, when he is of an age to reflect, to examine and to judge? And is it true also that as the result of the system, there has been a moral break-down, a total weakening of the whole moral frame of the student, making it impossible for him to study a subject without the artificial stimulus of an examination? And coming to consider one of the indirect but important aspects of the examination system as pursued in the Universities, is it a fact that their examinations (rewarding bookishness with a very liberal hand) are of a character calculated to engender in students the mischievous delusion that brain-work that could produce nothing was yet a more respectable thing than handiwork that produced something? The Indian Universities Commission will, therefore, have to consider whether it is possible to devise a scheme of University Examinations, which would directly and principally aim at separating the chaff from the grain, at making out a clear division between these who are taught only to listen, remember, and believe, and those who are trained to see, compare, verify, and judge. The Indian Universities Commission will have, in fact, to find out how *dogmatic teaching*, which lends itself eminently to cramming purposes, may find no support or stimulus in the scheme of examinations of the Universities in India.

EDITOR.

IV.

THE UNIVERSITY-EXAMINER AND THE COLLEGE-TEACHER.

In devising a well-organised system of examination, the thing specially to be kept in view is the mutual co-operation of students, teachers, and paper-setters and examiners towards a common end, the common end

being a high standard of education; for, to quote the learned President of the Universities Commission, "Colleges and lectures and examinations are useful only in so far as they give a right direction to the minds and characters of men" (*Calcutta University Convocation Address, February 15th, 1902*). Now, an examination is a useful instrument in the hands of a teacher to test his *own* work, and to know how far his pupils have followed and profited by his teaching. Good, sound teaching being the one thing needful, the one thing for which the College, the University, and the examiner ought to exist, and the teacher or training being the person who is specially and primarily entrusted with the work of teaching, the teacher is the one person who *primâ facie*, has any real claim to examine his boys; for, is it not he who requires to know and feel, more than any others, how far *his* efforts in *educating* his boys are bearing fruit? And if anybody else should at all come in and take part in the work of examination, his part would be only that of an assistant or a delegate, but never that of a superior or even a co-ordinate authority. If training is the object for which the teacher should exist—he or somebody else who is identified or equally interested with him, or derives his authority from him should be entrusted with the work of examination, or *the work of experimental verification of the methods adopted by himself*. An outside authority, one whose work in life is something else than the training or teaching of boys, must never be allowed to sit in judgment over another whose sole function is such teaching and training. If, however, a person is appointed a teacher who is ill-qualified for the work of training boys, the remedy for it is either to replace him by some better-qualified person, or to place him under the control or guidance of a true teacher or trainer, who will alone have the right to test his assistant's work and direct his efforts. But in no case does the remedy lie in appointing a man who is as ill-qualified as, or worse qualified than, the teacher who is found wanting. I desire to make it clear that, *given the true teacher*, he is alone fitted to examine, not the outsider or anybody else who is not a teacher or trainer of youths himself. The examiner who is not a true teacher is not a help, but a hindrance to all true teachers; and an examination conducted by such an examiner takes the whole soul out of teaching; with the result that a true teacher finding himself relegated to a secondary position, is in a manner compelled to conform to an *external* standard, and soon comes to lose faith in himself, sinks into the position of his own text-books, and gives but little of his own personality to his work. Thus, it is essential that not the nominal teacher, but the true teacher, *i.e.*, one who is a genuine student or worker himself, should alone be appointed to teach and to examine. The question of testing the efficiency of the work of a teacher by means of examinations should be left to be solved by the body of well-qualified teachers in the different colleges. All the various checks and balances, the endless contrivances to weigh and appraise the work and efficiency of teachers become

necessary or natural when we have once committed the initial mistake of bringing in the wrong set of men and labelling them as teachers and trainers, when in fact, they are no better than amateurs, who ought to qualify by apprenticeship under a master for the mastership in some future time. Therefore, it would appear that if an examining board like the Calcutta University is at all to develop into a teaching corporation, *i.e.*, a true University; and if the process of such development is through the gradual conversion of the coaching establishments known as Colleges, whether Government or private, into true teaching bodies or Colleges proper, the first thing to consider is whether it is possible to lay down specific conditions of work for a teacher in a College, compliance with which alone would mark him out for special recognition by the University, as a teacher *proper*, with whom shall lie principally the work of teaching and examining and of determining the course of University education. The great body of *apprentices* in Indian Colleges, although they may continue to hold the courtesy title of teacher, must nevertheless, in a well-organised scheme of education, be relegated to their proper places, occupying only a subordinate position, while all control and authority, both at the Colleges and the University must go to the body of teachers proper, *i.e.*, those who by approved work in the past or by approved work during specified periods of their incumbency, have been finally accepted by the University as such. The pivot on which the whole University machine must be made to turn would be this superior body of men whom I have designated as teachers proper. It makes a whole world of difference whether you entrust the chief share of educational work to true teachers or to apprentices. If you merely juggle with names and call men teachers who could only be assistants, and entrust these assistants—however great may be their academic distinctions—but solely on the strength of such distinctions—with the important work of teaching, and of guiding and controlling teaching by means of the University examinations, your Colleges shall remain coaching establishments to the end of time, and the University shall remain an examining board for evermore. Therefore, it comes to this that the University must lay down specific conditions of work or of competency for this superior body of teachers, so that only the fittest among the great body of teachers may find it possible or easy to find entrance into the select body of duly-licensed teachers and may be *recognised as such by brothers in the profession*. What these specific conditions for membership in the body of licensed or recognised teachers should be, I will discuss more fully hereafter; but that they must be clear, distinct and of a kind that shall leave only the fittest among teachers to survive seems—in the light of what I have said as to the paramount importance of preserving the *purity* of the body of recognised teachers—sufficiently manifest. It may be that my scheme for organising a superior type of College-teachers, with whom all power shall lie, may not commend itself to the authorities; but

I would invite the special attention of the members of the Indian Universities Commission to the supreme importance of the question. For, although it is quite true that a scheme for the creation, and maintenance of a body of men—whom I have designated as teachers proper—can only be discovered and pursued at the cost of some trouble and *experiment*, still, if trouble and thought and experiment are to be spared in this great matter, the Government and University had better at once resign the hope of attaining any moral and intellectual results of real value from what they are doing.

EDITOR.

[*To be continued.*]

RANA KUMBHA: A STUDY FROM ORIGINAL SOURCES.—I.

Among the princes whose heroic achievements throw a halo of romantic interest round the history of Mewar, three great names stand out prominent. Kumbhakarna of Rānā Kumbha waged long and desperate wars with the Muhammadan Kingdoms of Malwa and Gujarat and raised Mewar to the rank of a first-rate power in Hindustan in the face of formidable opposition. Sangram Singha or Rānā Sanga, the grandson of Kumbha, established Hindu supremacy in Central India, and fiercely contested the Imperial throne of Hindustan with the Great Moghul Babar. Pratap Singha or Rānā Kika, grandson of the great Sanga, proudly declined the offer of a subordinate alliance with the all-conquering Akbar, and baffled the persistent endeavours of his mighty antagonist to subdue him, with a steady fortitude that can never be suspassed. It would be difficult to find in military history a more brilliant chapter than that which enshrines the glories of these Rajput warriors. In this short sketch, I propose to tell the story of how the first of this heroic trio, Rana Kumbha, defended Mewar against the repeated invasions of his powerful Muhammadan neighbours as told by their own historians.

The earliest known date of Kumbha's reign corresponds to A. D. 1435, the year in which his inveterate foe, Mahmud I. usurped the throne of Malwa. A Chitorgarh stone-inscription of his father, Mokala, gives the date of A. D. 1428-1429; and therefore Kumbha must have ascended the throne of Chitor some time between 1429 and 1435.* The earlier years of his reign were spent in developing the resources and strengthening the defences of Mewar. Rānā Kumbha is one of the greatest of Indian builders. He is said to have erected thirty-two new fortresses. The most important among them is Kumbalmir, a fortress that, in point of strength, situation and the picturesqueness of historical associations, stands next only to Chitor in Rajputana.

Kumbha was not allowed to strengthen his kingdom long in peace.

* Epigraphia Indica, Vol. II, p. 410 and note 9.

In A. D. 1442, Mahomed of Malwa, the greatest of Malwa's independent Muhammadan rulers, formed the design of invading Mewar. Starting from Sarangpur, Mahmud burst into the territories of the Rānā with an well-equipped force. The strength of the Rānā lay in his fortresses. Numerically his army was not strong enough to meet the invading hosts of Malwa, in open field. He therefore shut himself up in his strongholds. Mahmud advanced, rather leisurely, plundering, desolating, and demolishing temples until he reached the neighbourhood of Kumbalmir.

The fort of Kumbalmir stands on a lofty peak of the Aravalli range. It had a great reputation for its extraordinary strength and the difficulty of access in those days. Deva, a general of the Rāna, commanded the garrison. Mahmud at once laid siege to the fort. The garrison offered a bold resistance to the assaults of the besiegers. Failing to take the fortress by storm, Mahmud directed his siege operations against an outwork, a newly-built fortified temple, containing a large store of arms and provisions. Cut off from the fort, the defenders of this outpost held out for a week. At last, when their numbers were greatly thinned, the Muhammadans stormed the temple, made the survivors prisoners, and plundered the stores. Mahmud, flushed with victory, made elaborate arrangements for the burning of the temple. The next thing that occupied his attention was a suitable disposition of the idols. And this great work he accomplished with a fanatical ingenuity never approached by his great namesake of Ghazni. The minor ones he handed over to the butchers to be used as weights; and the principal idol, that resembled a "Rama" according to the author of *Tabakat-i-Akbari*, was burnt into lime and given to the unhappy Rajpoot prisoners, to be chewed with betel.*

In spite of this success, Mahmud dared not make another attempt to capture Kumbalmir, and, instead of wasting energy in that arduous undertaking, determined to strike at the root of Rana Kumbha's power by taking Chitorgarh. He therefore abandoned the siege, turned eastward, and marched upon Chitor.

Chitorgarh stands on the summit of a hill in the midst of a level plain. "The circuit of this mountain at its base is six *kos*, and the ground upon which the walls of the fort stands is nearly three *kos*." A small fort at the foot of the eminence guarded the ascent. Mahmud was opposed by the garrison of this outpost, and failed to push his troops up until, after a vigorous resistance, the guards were either killed or captured. He then commenced his preparations for the siege. At this stage, spies informed him that Rana Kumbha had on that very day left the fort and taken position somewhere among the hills outside the walls. Mahmud at once saw that, with the subtle and daring Rajput on the flank, siege operations would be futile and set out in pursuit of the Rānā. He despatched several

* Tabakat-i-Akbari, Lucknow edition, p. 551.

detachments of his troops in different directions; Kumbha saw his opportunity, and with a picked body of men fell upon the Sultan. But he was soon out-numbered and compelled to retire within the walls of Chitor. This easy retreat shows how dexterous Kumbha was in his movements. In spite of Mahmud's precautions, none of his detachments succeeded in throwing itself between the Rānā and the fortress.

The siege now began. Mahmud's large force spread itself round the fortress; every day flying columns were despatched to ravage the neighbouring plains With the main body of the Rajput army shut up in Chitorgarh, Mahmud now turned his attention to occupying the territories of the Rānā lying near the frontier of Malwa. Thus, Mandisor was occupied. But with the advent of the rainy season, the Sultan had to abandon his posts under the walls of the fort and pitch his camp on an elevated plot. Nizammuddin Ahmad is silent about what passed between the belligerents during the rains and the autumn. In February 1443 A. D., we find the Rānā encamped outside the fortress. From there he delivered a night attack upon Mahmud with ten thousand horse and six thousand foot. The Sultan was prepared for such a contingency and the Rānā had to retreat after losing a considerable number of men. Mahmud followed the example set by his adversary and on another night, made an attack upon the Rajput camp. In the struggle that ensued, the Rānā himself was wounded and "fled towards Chitor; great number of Rajputs became food for the sword, and booty beyond computation fell into the hands of Mahmud." This was Mahmud's most decisive victory during the whole compaign. Now it was time to follow it up and press the siege with vigour. But what followed is simply inexplicable. "Offering thanksgiving for victory with proper ceremony, and postponing the capture of the fortress for another year, Mahmud returned to his capital, Shadiabad (Mandu)." Thus ended Mahmud's first expedition against the Rānā of Mewar. Probably Mandisor was either evacuated or re-captured after the retreat of the Sultan.

Three years later, in July, 1446 A. D., Mahmud led a second expedition against Mewar. Rānā Kumbha had availed himself of the interval to recoup his strength. He certainly augmented his army and spared no efforts to place it in a condition to meet the army of Malwa in open field. This time Mahmud made Mandalgarh his objective point. Mandalgarh is situate among the hills lying on the eastern bank of the Banas, a tributary of the Chambal. From Ranthambhor, Mahmud reached the bank of the Banas by forced marches. Rānā Kumbha was waiting for the invaders outside the fortress. But when the advanced guard of the Malwa army came in sight, he withdrew within the walls. Perhaps the day was drawing to its close, and the cautious Rajput was not willing to risk a battle without ascertaining the entire strength of the enemy. "When Rānā Kumbha had not the courage to meet the Sultan

face to face, he took shelter within the walls of the fortress." "On the second and the third day," continues Nizamuddin Ahmad, "the Rajputs, sallying out of the fort, gave signal proofs of valour and enterprise."

It is usual with our author, when referring to any fighting between the Muhammadans and the Rajputs, to tell us that a great number of Rajputs were slain. But he is silent about the casualties, or the advantages gained by either of the parties during these conflicts near Mandalgarh, and his account of the way in which the compaign was brought to a close is more perplexing than the retreat of Mahmud after gaining a victory in A. D. 1443. "But in the end, the Rānā adopting the path of humility and submission, agreed to pay *peshkush.** Sultan Khilji, finding it expedient, consented to make peace." As a grim commentary on the ambiguous language of the annalist stands the Pillar of Victory at Chitor, completed two years after Mahmud's second invasion, to commemorate Kumbha's victory over the Muhammadan invaders of Mewar.†

For ten years after the peace Mahmud gave Rānā Kumba no more trouble, and no alien invader crossed the frontiers of Mewar. Kumbha resumed building and otherwise strengthening his kingdom. But these years of peace were destined to be followed by a fearful storm that threatened Mewar with obliteration. Rānā Kumbha himself provoked the storm; and the skill and energy with which he faced it constitute his highest claim to a place in the front rank of the ablest of Indian princes.

[*To be continued.*]

RAMAPRASAD CHANDRA.

IS MAN A FLESH-EATING ANIMAL?—IN THE LIGHT OF HIS ANATOMICAL STRUCTURE AND PHYSIOLOGY.

Without stopping to consider the ethical, the economic or the humanitarian aspect of flesh-eating, let us pass at once to the practical phase of the question :—Is flesh meat, as an article of diet, essential to physical and mental vigor? The known facts of anatomy, physiology and chemistry, as well as the experience of thousands, ought to enable us to answer this question in a practical and positive manner.

From an examination of the *structure* of any animal, much may be learned regarding its nature, its habits and its normal food. A careful study, for instance, of the legs, feet, talons, jaws and teeth of the wolf would show unmistakably

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* Indemnity.

† See the transcript of a portion of the inscription, Visvakoşa, Part XII, p. 122.

that the wolf was a predatory, carnivorous animal—an animal adapted to running down, killing and eating some weaker animal. A critical examination of the tiger would reveal that, while the jaws and teeth are equally fitted for holding and rending flesh, the animal is not adapted for running, but that the claws are peculiarly formed for clutching and holding prey. The tiger's mode of securing his food could be thus unerringly deduced from an examination of its anatomical structure. The *formation of the internal organs* is still more closely adapted to the animal's habits; and an examination of the stomach, liver, intestines, pancreas and other organs would indicate without possibility of error the animal's natural food.

Applying this method of examination to man, we find that, by the *structure* of his hands, his jaws and teeth, his general muscular development, and more especially his digestive organs, he is closely related to the anthropoids—the man-like apes, who live entirely upon fruits and nuts. Whatever opinion may be held regarding the "evolution" of man, there can be but one conclusion concerning his *classification.* Regarding man's place in nature, a great naturalist, Dr. Ernst Hæckel, has said:—"Whatever part of the body we consider, we find, upon the most exact examination, that man is more nearly related to the higher apes (eaters of fruit and nuts) than are the highest apes to the lowest apes. It would, therefore, be unwarranted to regard man as constituting a class by himself." Another great naturalist, Linnæus, referring to the natural diet of man, says:—"Man's structure, external and internal, compared with that of other animals, shows that fruits and esculent vegetables constitute his natural food." Cuvier says:—"The natural food of man, then, judging from his structure, appears to consist of fruits, roots and the esculent parts of vegetables." Dr. Edward Smith, author of "Food and Dietetics," says:—"Every element, whether mineral or organic, which is required for nutrition is found in the vegetable kingdom." Dr. Carpenter says:—"A well selected vegetable diet is

capable of producing the highest physical development." Virchow, perhaps, the greatest of recent authorities on physiology, says :—"The future is with the vegetarians." It has been found that the *length of the alimentary tube* of animals varies in accordance with the nature of their food. The alimentary tract of the lion is three times the *length of the lion's trunk*, while the intestine of a sheep is twenty times its length, because the food upon which it feeds is less concentrated and requires more time for digestion. So it is found that the purely herbivorous animals like the sheep, goat, cow, camel, &c., have long alimentary tubes; while the carnivorous animals, such as tiger, lion, wolf and others, have an extremely short and simple alimentary tract. In applying this principle to man, some writers on dietetics have made the amusing blunder of comparing the length of his intestinal tract not to the length of his trunk *as in the case of the animals studied*, but to the length of his entire body standing erect. Comparing the length of the alimentary tract of man and of the gorilla to the *length of their trunk*, it is found that the alimentary tube is nearly twelve times as long as the trunk; that is, four times as long as that of the carnivorous animals.

Regarding the teeth of man, it has been claimed that the presence of the canine teeth is an indication that flesh meat is a necessary (or, at least, natural) ingredient of his food. We find, however, that the anthropoid apes (gorilla, ourang and chimpanzee), who are known to be strictly frugivorous, have larger canine teeth than man. These canine teeth in man being still smaller than in the apes, as a matter of fact, demonstrate clearly that, like them, he is naturally a non-flesh feeding animal.

There are some who, while admitting that flesh is not a natural food for man, claim that, after having been used to flesh for centuries, the human body cannot at once adapt itself to a non-flesh diet. Against this may be quoted the experience of hundreds of descendants of flesh-eating races,

who find themselves maintained in increased health and strength on a non-flesh diet. Furthermore, it is an oft demonstrated fact that dogs, cats, bears and other flesh-feeding animals will thrive upon a purely non-flesh diet.

Conclusion: To sum up this phase of the question in a word; man's anatomical structure and physiology show him to be naturally a non-flesh-eating animal.

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THE SPHERE OF RELIGION.—II.

SASTRIC EVIDENCE ON THE SUBJECT.

[*Concluded from 214, Vol. V.*]

[*N.B.*—This article would lose much of its force, unless read in connexion with the previous article on the same subject in the previous number of this journal.—Ed. *Dawn.*]

The lines from Tennyson may be taken to be a poetical rendering of the highest of Vedantic teachings, for they identify all knowledge with the knowledge (in the sense of actual realisation) of God, Brahman or the Truth, however men choose to call it. Our limitations, mind-born, make us, live *perforce* from thought to thought, and make it therefore, impossible so long as we are thus limited and fettered to compass the Whole; for, we then make *one* act a phantom of succession. This looking at things from partial stand-points begets what is called mind-knowledge; but then the height of Religion is not reached. So long as we live as parts, we see but parts, and severally label these as the *only* truths; and so wage an uncompromising war with our fellows. But when the truly religious life has been reached, we have ceased to look from our separated view-points, and *then, all* knowledge through *one* knowledge, in other words, the knowledge of the *parts* in the knowledge of the *whole, i.e.*, in the knowledge, realisation or discovery of God, Brahman or the Truth, becomes possible. Thus, we find in the *S*ruti, the following question put to Svetaketu by his father.

उत तमादेशमप्राक्ष्यो येनाश्रुतं श्रुतं भवत्यमतं मतमविज्ञातं विज्ञातमिति।

छान्दोग्य। ६।१।३।

[*Translation.*—Have you ever asked your teachers for that instruction by which we hear what is not heard, by which we perceive what is not perceived, by which we know what is not known;—*Chhandogya* 6-1-3.]

The import of the above question is, as we would presently show more fully, that there is *one such thing as by its knowledge (realisation) gives rise to the knowledge of all things*; and that thing is Brahman, God, the Truth, or Existence, Paramatma, the Highest Self or even the Self. The Chhandogya Upanishad in its sixth prapathaka from the first chhanda to the last seeks to establish the well-known *S*ruti proposition,

आत्मनि विज्ञाते सर्व्वमिदं विज्ञातं।

Translation.—When the Self is known, all this is known [*Vide* Vedanta-Sutras 1-4-20.]

The more important extracts relating to our present subject from said Upanishad which belongs to the Sama-Veda may be thus rendered into English and have been put with a bracket.

[*S*vetaketu was the son of Aru*n*i, the grandson of Aru*n*a. To him, his father (Uddâlaka, the son of Aru*n*a) said:

'*S*vetaketu, go to school; for there is none belonging to our race, darling, who not having studied (the Veda) is, as it were, a Brahma-bandhu, *i.e.*, a Brahman by birth only.'

"Having begun his apprenticeship (with a teacher) when he was twelve years of age, *S*vetaketu returned to his father, when he was twenty-four, having then studied all the Vedas,—conceited, considering himself well-read, stubborn.

"His father said to him: '*S*vetaketu, as you are so conceited, considering yourself well-read, and so stubborn, my dear son, have you ever asked for *that instruction by which we hear what is not* (*or cannot be*) *heard, by which we perceive what is not* (*or cannot be*) *perceived, by which we know what is not* (*or cannot be*) *known?*'

'What is that instruction, sir?' he asked.

The father replied: 'My dear son, as by one clod of clay, all that is made of clay is known, the difference (modification or effect) being only the name, arising from (or having its origin in) speech, but the truth being that all is clay merely;

'And as, my dear son, by one nugget of gold, all that is made of gold is known, the difference, modification or the effect being only the name, arising from or having its origin in speech, but the truth being that all is gold merely;

"And as, my dear son, by one pair of nail-scissors, all that is made of steel (Kârsh*n*âyasam) is known, the difference, modification (*i.e.*, the effect) being only the name, arising from or having its origin in speech, but the truth being that all is steel merely;—thus, my dear son, is that instruction."]

*S*ri-*S*ankaracharya in his commentary on Vedanta-*S*utra I-1-8. refers to the above passages, and explains in conformity with teaching of the Sutra itself first that the Chhandogya-sruti lays down, *firstly*, that "*through the knowledge of* the cause everything becomes known"; and *secondly*, that this cause is Brahman and not mere material nature, gross, subtle, &c. Says the great Teacher:—"In the beginning of the Prapathaka, it is intimated that *through the knowledge of the cause, everything becomes known.* Compare the following consecutive sentences" (—the passages that follow are those which we have already quoted from the Chhandogya-sruti). And he concludes that the cause is not *matter* technically known in the *S*astras as *pradhan* or *prakriti* (no-self) but Brahman; for says he, "*pradhan* or *prakriti* being merely the *cause of the aggregate of the objects of enjoyment,* ITS knowledge could never lead to the knowledge of the aggregate of enjoyers (souls), because the last is not the effect of pradhan, or no-self." In other words, starting from

the major-premiss of the *Sruti* proposition, आत्मनि विज्ञाते सर्वमिदं विज्ञातं (when the Self or Brahman is known, all this is known), *Sankaracharya* explains that the above *Sruti* proposition would be invalid if it were accepted that Pradhan or Prakriti (= no self) was the *cause*, for according to the Chhandogya-sruti, through the knowledge of the cause, everything becomes known; for, in no way could a knowledge of the no-self or Pradhan (which is by definition cause of the aggregate of objects of enjoyment) lead to a knowledge of *Souls* (the aggregate of *enjoyers* as contra-distinguished from *objects* of enjoyment).

It would appear, however, that an objector might take up a perfectly legitimate and arguable position if he were to put to the great teacher the following question: 'I quite admit that a knowledge of Pradhan (the no-self = the cause of the aggregate of objects of enjoyment) could not lead to a knowledge of the souls or the aggregate of enjoyers, to the knowledge of the Self. But on the other hand, is it not *also* true that a knowledge of the souls or the aggregate of enjoyers (= self) could never lead to a knowledge of no-self,—of material nature, because Matter and Spirit are essentially opposed. And if so, does it not stand to reason that in either case, the *Sruti* proposition falls to the ground—the proposition, namely, आत्मनि विज्ञाते सर्वमिदं विज्ञातं (when the self is known all this is known, including the no-self, *i.e.*, the whole range of material nature, *i.e.*, of all *objects* of enjoyment)?

This sort of objection or *purva-paksha*, as it is called in *Sastric* discussion, was quite anticipated by *Sankara*, as would appear from the following observations of the great Teacher in his commentary on Vedanta-Sutra, I-4-23. Says he, arguing from the stand-point of the *purvapakshin*—the "objector-general," in the phraseology of the late Professor Max-Müller:—"The effect of the Creator's activity, in this world is seen to consist of parts, to be non-intelligent and impure; we, therefore, must assume that its *cause* also is of the same nature; for it is a matter of general observation that cause and effect are alike in kind. But then, that Brahman does not resemble the world in nature, we know from many Scriptural passages, such as, 'IT is without parts, without actions, tranquil, without fault, without taint (Svet. Up. VI-9), Hence, there remains no other alternative but to admit that in addition to Brahman, there exists a material cause of the world of impure nature such as is known from the Smritis (*viz*, the Samkhya-Smriti—the Pradhan) and to limit the causality of Brahman, as declared by scripture, to operative or efficient causality." In other words, the objector says that Brahman and the created world being opposed to each other, the former being without taint and the latter being impure by nature, the existence of a material cause of the created world must be posited, and the creatorship of Brahman as declared by the *Sruti* must be one of *efficient* character, on the analogy of the *potter* (efficient, operative or निमित्त cause) and the pot (the created object) and the *clay* (the material, substantial or उपादान cause). In this way, it seems to be very clear that just as a knowledge of the potter gives no clue to the knowledge of the clay, so also the knowledge of Brahman should lead to no knowledge of the material cause. The answer which *Sankara* makes is rather long, but must be given in full. He

takes his stand upon the Chh*a*ndogya-sruti passages and says that there we have a proposition started with some illustrative instances, three in number, one relating to clay, and the other to gold and the third to steel, all *material* causes. And this *proposition* is that: "through the cognition or knowledge of one thing, everything else, even if previously unknown, becomes known." This *main proposition*, [which Dr. Thibaut translates as promissory statement (प्रतिज्ञा)] is contained in—"have you ever asked for that instruction by which that which is not heard becomes heard; that which is not perceived, perceived; that which is not known, known?" And *S*ankara contends that, in view of the illustrative instances above given which are all instances of *material* causes, the cause, Brahman, of this world must not only be like the potter or the goldsmith *i.e.*, the efficient cause; but also must be the material cause, like the clay or the gold: for otherwise the प्रतिज्ञा, the main proposition above given, could not be supported. Says he—"Brahman is to be acknowledged as the material cause (clay) as well as the operative cause (potter), because this view does not conflict with the "promissory statement" in the Chh*a*ndogya-*S*ruti and the illustrations that are given. The promissory passage intimates that through the cognition of *one* thing, everything else, even if previously unknown, becomes known. Now, *the knowledge of everything—the aggregate of objects of this world*—is possible through the cognition of the material cause, since the effect is non-different from the material cause. On the other hand, effects are different from their operative causes; for we know from ordinary experience that the carpenter, for instance, is different from the house he has built. The illustrative example is the one mentioned, Chh. VI-1-4—'My dear, as by one clod of clay, &c.' which passage has reference to the material cause. The text adds a few more illustrative instances of a similar nature, "as by one nugget of gold &c." Similar propositions (प्रतिज्ञा) are also made in other places; for instance, in Mundukopanishad I—1—3—'what is that through which if it is known everything else is known and in the same Upanishad I-1-7;' the illustration of the above proposition is given in: 'As plants grow on the earth.' Compare also the प्रतिज्ञा (promissory statement) in the Brihad*a*ra*n*yaka *S*ruti IV-5-6. 'When the Self has been seen, heard, perceived and known, then all this is known'; and as an illustration of the above statement is given the following: 'Now as the sounds of a drum if beaten cannot be seized externally, but the sound is seized when the drum is seized, or the beater of the drum.' "Similar promissory statements," proceeds Sankara to say, "and illustrative instances which are to be found in all Ved*a*nta texts are to be viewed as proving, more or less, that Brahman is *also* the material cause of the world. The ablative case also in the passage 'that from whence (यत:) these beings are born' has to be considered as indicating the material cause of the beings according to the grammatical rule P*a*nini I-4-30."

"That Brahman is *at the same* time the operative cause of the world, we have to conclude from the circumstance that there is no other guiding Being. Ordinary material causes, indeed, such as lumps of clay and pieces of gold are dependent, in order to shape themselves into vessels and ornaments, on extraneous operative causes, such as potters and goldsmiths; but outside Brahman as

material cause, there is no other operative cause to which this material cause could look; for Scripture says that previously to creation Brahman was one without a second. Further, if there were admitted a guiding principle different from the material cause, *it would follow that everything could not be known through one thing* and so the प्रतिज्ञा (promissory statement) and the illustrative instances would be rendered of none effect." [Vedanta Sutra I-4-23.]

Further, in his commentaries on *Sutras*, I-4-24, 25, 26, and 27, *Sankara* says as follows:

"Passages like 'He wished, may I be many, may I grow forth, and 'He thought, may I be many, may I grow forth,' show in the first place, that the Self is the agent the independent activity which is preceded by the Self's reflection; and in the second place, that it is the material cause also, since the words, 'May I be many' intimate that the reflective desire of multiplying itself has the inward self for its object" (I-4-24).

"Brahman is the material cause of the world for the reason also that the origination as well as the dissolution of the world is directly spoken of in the sacred texts as having Brahman for their material cause. It is well-known that that from which some other thing springs and into which it returns is the material cause of that other thing. Thus, the earth, for instance, is the material cause of rice, barley, and the like" (I-4-25).

"Brahman is the material cause for the reason that the scriptural passage, 'That made itself its Self' (Taitt: II-7) represents the Self as the object of action as well as the agent.—But how can the Self which as agent was in full existence previously to the action be made out to be at the same time that which is effected by the action?—Owing to modification (परिणाम) we reply. The self, although in full existence previously to the action, modifies itself into something special, *viz., the self of the effect.* Thus, we see that causal substances, such as clay and the like, are by परिणाम, by undergoing the process of modification changed into their products" (I-4-26).

"Brahman is the material cause for the reason also that it is spoken of in the sacred text as योनि (yoni = material source). For that the word yoni (योनि) denotes the material cause is well-known from the use of ordinary language; in some places, indeed, the word means only *place.* But that in the passage we have quoted it means not place but material cause follows from a complementary passage, namely, 'As the spider sends forth and draws in its threads &c.' It is thus proved that Brahman is the material cause of the world. Of the objection, finally, that in ordinary life, the activity of operative or causal agents *only*, such as potters and the like, is preceded by reflection, we dispose by the remark that as the matter in hand is not one which can be known through inferential reasoning, ordinary experience cannot be used to settle it. For the knowledge of that matter, we rather depend on Scripture altogether, and hence Scripture only has to be appealed to. And that the Scripture teaches that *the Lord who reflects before creation is at the same time the material cause,* we have already explained" (I-4-27).

EDITOR.

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THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः ।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

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AN EXAMINATION INTO THE PRESENT SYSTEM OF UNIVERSITY EDUCATION IN INDIA AND A SCHEME OF REFORM.

[*Continued from page 278, Vol. V*]

QUALIFICATIONS OF THE RECOGNISED COLLEGE-TEACHER.—V.

The object of all teaching being the training of pupils by the teacher, the giving the right direction to their minds and characters, it follows at once (as I have shown in my fourth article) that the teacher himself is the proper person to examine his boys or some one else who is equally fitted and interested like himself. The vesting of all authority and control in the body of men whom I have called teachers proper, as distinguished from others who are not teachers yet, who cannot be called *masters*, but only apprentices, although nominally holding the title of teacher,—this vesting of all authority in teachers proper is, as I have tried to show in a previous article, the first steps to a real reform of University education in India—the very first steps towards converting the Indian colleges from merely coaching agencies, which they undoubtedly are at the present moment, into true colleges or teaching bodies. Every other reform must radiate from this central of reforms and any attempt to view things merely from the outside without reaching the central fact of *teaching*, would leave things as they are, perpetuating the present character of Indian Colleges as coaching establishments and of the Indian University as a merely examining board.

The selection and appointment of such teachers in Indian Colleges as shall be competent to play the high part which must be allotted to them

in any *genuine* scheme of education and examinations is, therefore, a prime question for the consideration of which no amount of trouble, thought and experiment should be accounted too much. To differentiate true teachers from others that may be hitherto enjoying the same name and privileges would be, it need hardly be said, the object of any specific tests—any specific conditions of work for the true teacher. Now, in finding such tests we can very well start from the recognised proposition that a true teacher—one whose aim is to train or educate—bring out the latent capabalities of his pupil,—never resorts to dogmatic teaching; and if such is his method, it is also clear that in examining his boys, his object would be to discover, not if they have acquired the power of listening, remembering, and believing; but if they are able *for themselves*, to see, compare, verify, judge, classify, expound or comment. This being so, it is clear that the college-teacher of whom I am speaking must not himself be a person, *which he is or apt to be here in India*—whose mind is only full of second-hand knowledge, a store-house of "neatly assorted facts like the specimens in glass cases in a museum." He must be a person who does not think the race won merely because he has passed certain examinations, merely because he has won high honours here in India or at Oxford or at Cambridge or elsewhere; but he must be one who is daily engaged in some work which improves and disciplines his own powers of seeing, comparing, classifying, verifying, judging, etc. On any other condition, the teacher would degenerate into a crammer; and all teaching become dogmatic,—monkish, if I am allowed the word for the purpose of fuller expression. A teacher who has allowed his mind to rust—who looks on the store of accumulated knowledge with a sense of complaisance, whose brain does not teem with new ideas or novel combinations but only with thoughts, (however excellent) of others—such a man I should like to relegate to a subordinate position in a revised scheme of University or collegiate education in India. It follows, therefore, that the teacher proper must be an original worker himself; one who is not resting on his oars, but pushing away as best as he might into the wide sea of knowledge in a direction of his own choice; so that he might know how to whet the intellectual appetite of his pupils and direct them along lines of original thought and research. A teacher who is also a worker is alone fitted to raise himself and others from the slough of routine or dogmatic teaching and routine

examinations.) The collective wisdom of the Indian Universities Commission ought to be able to devise some system for the selection of the kind of men I am speaking of and to prescribe certain conditions of work such as would clearly differentiate them from the great body of assistant teachers who would work under them in our Colleges. For myself, I shall be content with throwing out certain general hints and considerations to help in the right solution of the question.

Before proceeding to give the reader the positive side of my proposals I desire to state what I may call their negative side. I desire the Universities Commission to consider whether in preventing dogmatic or artificial teaching and artificial examinations, rewarding and encouraging such teaching—it is enough to look only to the academic honours or distinctions won by a teacher, whether, in fact, it is enough that we should for ever rest complaisantly on the *initial* presumption that a brilliant graduate from Oxford or Cambridge or elsewhere after appointment in India is not likely to degenerate into a dogmatic teacher, but shall ever remain *a living worker*, even amidst the depressing influences of life and environment in India. An even cursory examination of the question-papers set at the different University Examinations,—papers set by these brilliant home-graduates in so many instances,—will reveal the astounding fact that the questions set are only calculated to test acquirement," *i.e.*, how far the teacher has been successful in stuffing his pupil's mind with the thoughts of others—to use Lord Curzon's pointed phraseology; and in very rare cases, indeed, have they the effect of directing and stimulating education or true training. The question papers are an ample store-house of information on the subject of University education in India—to which the Universities Commission should largely resort for purposes of study. They are the handiwork of brilliant University graduates from home or elsewhere and for ever dissipate the delusion that a good degree from Oxford or Cambridge or mere Indian experience of itself is enough to qualify a man as a trainer of University youngmen. These University Question-papers afford documentary evidence of a most convincing and even conclusive kind which whoso reads may understand, and which, therefore, ought to be scrutinised and analysed by the Indian Universities Commission with a view to decide once for all whether it were not necessary to make any extra provisions to pre-

vent artificial teaching and artificial examinations such as have existed during these forty years and more.

As far as I have been able to judge, I have come to the deliberate conclusion that the *future* college-teacher in India, although he might have passed through a course of training at the hands of the greater men of Europe and have had opportunities of imbibing habits of original work and thought at some renowned foreign University, would soon, *under existing circumstances*, cease to be a living worker in India;—and that, therefore, he would require to be helped in some way, that he might not sink into the slough of routine teaching and routine examinations that are in vogue in this country and for which his predecessors in the University must be held responsible. I do not contend that an Indian University must produce during each decade of its life—a Newton or a Darwin, a Newman or a Ruskin. But I do contend that where among college-teachers, lecturers or professors, the spirit is abroad of study and research, of thought and observation, there surely we may look forward, sooner or later to see savants and scientists, men of thought and men of ideas. And I desire to insist with all the emphasis I can command that the College-teacher—one who may be given a special name by the University—say "recognised or special teacher"—must, in addition to whatever other qualifications he might have, be so fully convinced of the value of developed faculties and good mental habits in his pupils that he of all others, should be fully prepared to shew in his own example how much he is animated by the spirit of thought and observation, of study and research. For, it is the absence of this spirit from our educational circles that has produced what consequences it has, both in the matter of teaching and examining, of which the University question-papers are documentary evidence of a clear, irrefragible kind.

I desire, therefore, to propose that a college-teacher on whom the University may elect to confer the high title of "recognised teacher" and who may accordingly be required to play a high part in the affairs of the University and the college,—such a teacher must be required to conform to specific conditions of work, such as would help him in fulfilling the conditions of a true trainer and examiner of youths. The conditions of work for a University-recognised teacher and the corresponding advantages or

privileges which, in my judgment, it would be feasible for the University to confer on the body of such recognised teachers, I would lay before the reader in another article. But whatever may be the merits or demerits of the scheme I propose to place before the Universities Commission, my submission is that the root-difficulty in finding a real remedy for the evils of Indian University education is the difficulty of discovering the method whereby to secure and maintain the *purity* of the body of men whom the University shall recognise as a body of "recognised teachers." And I affirm my conviction that mere academic distinctions and honours, however high, shall not, in the light of past experience, be held to be enough to confer, *for all time*, on a college teacher the high title of University-recognised teacher.

VI.

THE WHOLE CASE FOR UNIVERSITY REFORM IN INDIA.

The whole case for University Reform in India may be thus put in the form of question and answer:—

(*a.*) "The great fault of education as pursued in this country is, as we all know, that knowledge is cultivated by the memory instead of by the mind" (*Lord Curzon's Convocation Address, 1902*).

Why is this so? Because the Indian colleges are not true colleges as at Oxford or at Cambridge—*i.e.*, teaching bodies or training institutions. They simply prepare candidates for the University examinations.. If the University examinations were discontinued, they would collapse; the *raison d'etre* of their existence would be gone. They are ephemeral products, dependent for their very life on the life of an external examining board like the University.

(*b.*) What, then is the remedy? The remedy is in devising some means for the conversion of the existing coaching agencies mis-named colleges into colleges proper, *i.e.*, teaching and training bodies.

(*c.*) Has the Calcutta University any means or power to effect such conversion? Yes, it has under the law. (1) The University by the Act of Incorporotion has the power of "ascertaining by means of examination the persons who have acquired proficiency in different branches of learning;

and of rewarding them by Academical Degrees;" and (2) secondly, it has the power to make "regulations touching the qualifications of the candidates for Degrees and the previous Course of instruction to be followed by them." (Act II. of 1857).

(*d.*) Has the University availed itself of these powers? Yes, it has by instituting various Academical Degrees, examining candidates and conferring on the successful amongst them, those Degrees, and prescribing the courses of instruction for such candidates.

(*e.*) If the University has already availed itself of its legal powers as aforesaid, how is it that the affiliated institutions sending up candidates for University examinations are, in your opinion, merely coaching establishments and not true colleges or teaching bodies and training institutions, so that, as you say, they are bound to disappear, if the University ceases to perform its function as an examining board? The answer is that although the University is vested with full powers to direct, control, shape and mould the course of education of those who come up to it for its Degrees, still it has so used its powers that, generally speaking, candidates whose "minds are stuffed with the thoughts of *others*" are specially rewarded; and affiliated institutions that are able effectively to act as coaching agencies are found to be specially successful.

(*f.*) What ground have you for saying that the University has so used its power as to bring about the wrong results? About the results there could be no question; witness the declaration of the Chancellor of the University which has already been quoted [*vide* (*a*) ante.].

The only point is—how to connect the actual results with the action of the University. The point would be answered if it were shewn firstly, that the University examination questions are of a kind that mainly reward bookishness, *i.e.*, brain-work that occupies itself only with "acquiring" second-hand thoughts; secondly, that success at the University examinations being the primary concern with candidates, the action of the University in rewarding mere barren-brain work encourages candidates to resort specially to institutions, where they are specially coached for such examinations. Thirdly, that not only does the action of the University encourage and reward bookishness, *i.e.*, brain-work of a kind that

is able to produce nothing original; but it also stifles all honest teaching and all honest attempts to learn, on the part respectively of the true teacher and of the true learner.

(*g.*) How is it that you think that the University examination papers are of a kind that reward only bookishness, when it is a fact that these papers are in so many cases set by brilliant graduates of foreign Universities? The answer is that the questions that have been set by such graduates during the last forty years are published in the University calendars for their respective years, which also give the list of text-books prescribed by the University for the different years. And scrutinising these questions for all the different University examinations in connection with the prescribed text-books, it will be found that the questions set were of a kind that rewarded bookishness. The question-papers read by the light of the text-books prescribed furnish clear documentary evidence on the subject.

(*h.*) In a number of years (*e. g.* 1875-79), the Calcutta University prescribed *no* text-books in English for the Entrance examination, how do you think that the questions set during those years would reward bookishness?

Although there were no prescribed text-books in English during those years, an examination of the papers set would reveal the fact that most of the questions set were of a kind that lent themselves eminently to cramming purposes and were, in fact, taken from Bain's Higher English Grammar and Messrs. Rowe and Webb's Hints on the Study of English.

(*i.*) Do you think it possible to set papers in English or other subjects which would test something higher than bookishness and which would effectually nullify the efforts of the crammer and the key-maker?

I *do* think that it is quite practicable to frame question-papers of a kind that would at once test and differentiate candidates under two separate heads:—(*i.*) those whose work is only to listen, remember and believe; and (*ii.*) those who are able to see, compare, verify, classify, judge, expound, and comment.

On a future occasion, I will explain myself more fully by classifying questions under proper heads, which would be such that a proper answer to these questions would be easy only to those who have undergone a

systematic training and which, therefore, would baffle the efforts of the crammer and key-maker.

(*j.*) Do you think there are any other ways to which the University could be of help in not only not rewarding but in discouraging or discounting bookishness? Yes—by an improved system of marking answers; but still this improvement on the system of marking could come only as a necessary adjunct to an improved system of setting examination papers.

(*k.*) But supposing the University should insist that a candidate for a University examination should produce what may be called a qualifying certificate—that is a certificate from the head of an affiliated school or college showing, *first*, that he has completed in that institution the course of instruction prescribed by the University; and *secondly*, that he has, judging from a test examination to which he has submitted, reasonable chances of passing the examinations;—supposing such qualifying certificate were required of every candidate—do you not think the University would be in a position to alter for the better the existing state of things? I hardly think so, *under the existing system*. In the first place, such a certificate is actually required of candidates for the Entrance Examination; while as regards the First Arts and the B. A. Degree examinations, a modified form of the above certificate giving only the first item of information as aforesaid is also required of candidates in every case, except in some special cases. In the next place, even if the full certificate were demanded of all candidates for all the examinations, it would not make much difference. Because so long as the University paper-setters so manage their work, ask such questions that what the teacher has to do is simply "to stuff the mind of the candidates with the thoughts of *others*," a certificate from an affiliated Indian school or college would only mean that the candidate has completed the prescribed course of instruction in that College; and in proportion as the work of coaching the candidate has been well-done in that School or College—the condition of a candidate's reasonable chances of passing the University examination would be satisfied.

(*l.*) But apart from the character of the questions set by the University paper-setter, supposing that the University should require that a candidate for a University examination in a particular subject should have passed through a prescribed course of instruction under a teacher specially recog-

nised, by the University, don't you think that would make some difference? Yes, the only difference would be that a teacher who ought to teach only English for instance, and who in many cases is called upon to lecture on other subjects would have, in a system of recognised teachers in particular subjects, to teach only the subject in which he is recognised by the University as specially fit.

(*m.*) Don't you think that the teachers of boys by the University-recognised teachers would be of a different character from what obtains at present? I hardly think so, *under the existing system*; and for two reasons principally. In the first place, the list of University-recognised College-teachers would naturally include many distinguished men,—men distinguished by their academic distinctions who are now on the staff of affiliated Colleges and who are also distinguished and important members of the University. The mere addition of a title to their names would not make them better or worse teachers, better or worse paper-setters and examiners, *so long as the existing system is allowed to continue*—the system, I mean, whereby bookishness or barren brain-work is specially rewarded by the University paper-setter. In the next place, if any of the distinguished graduates of Indian or foreign Universities would take it into their heads to observe a lofty standard of teaching and if at the same time the University paper-setter should continue to set questions that would only require the minds of the University-recognised teacher's pupils to be "stuffed with the thoughts of *others*, however excellent," the University-recognised teacher and the University paper-setter would pull opposite ways and it is not difficult to foresee which is likely to survive the contest,—when it is remembered that no Indian College, Government or private, finds it financially convenient to do without comparatively large classes, and when it is also remembered that, speaking generally, scholars resort very largely to places where the work of coaching candidates is very well done.

(*n.*) Is it, then, what you suggest that the college-teacher and the paper-setter must not pull opposite ways, but that they must work in concert? Yes, and something more. In the existing system of examinations, the college-teacher is in almost all cases the paper-setter; and so far the concert aforesaid is secured. But what is absolutely necessary is that there should be not only concert but Co-operation of a very healthy kind.

(*o.*) What should one understand by co-operation between college-teacher and the paper-setter being of a healthy kind? I mean that the College-teacher should set a lofty standard of teaching and the University paper-setter by the character of his questions and the paper-examiner by an improved system of marking answer-papers and the University Text-Book committee by prescribing the right sort of books should co-operate with the college-teacher in maintaining the lofty standard of *his* teaching, and with the honest student in his efforts at thinking, study observation and research.

(*p.*) How do you think it is possible for the University to secure the kind of healthy co-operation you mention between college-teacher and the University paper-setter? This could be done if the University should appoint as a paper-setter a college teacher who is prepared to set a high standard of teaching himself and who would be also under an obligation to set papers that would specially reward scholars who are willing to follow and are able to profit by such high standard.

(*q.*) What should we understand by a high standard of teaching? A high standard would require a teacher to teach in such a way that his pupil would be called upon not simply to hear, believe and remember the lectures, but more specially to see for themselves, compare, verify, classify, judge, expound and comment.

(*r.*) Do you think it is possible to set a high standard of teaching by the University appointing its own professors and making attendance at the lectures of the University professors count towards the required percentage of attendance? Yes, but would students in any number care to attend such "high-standard" lectures, so long as the University paper-setter makes it possible to a candidate to obtain distinction at the examination, although he might be unable "to draw one correct generalisation with his own brain" and, is only full of second-hand knowledge?

(*s.*) But supposing a University professor who is able to deliver "high-standard" lectures (in the sense in which you have explained the term) and who *does* deliver such lectures for the University were appointed to set papers at the different University examinations; would that react on collegiate teaching and improve it? No doubt it would. If, as a paper-setter the University professor would see that the questions are also of a high

standard rewarding something higher than barren brain-work, college-teachers would follow *his lead* and candidates also would take the hint and turn over a new leaf. But the improvement to which I refer would be only possible on one condition, which has been already specifically mentioned; namely—that the University-professor who is to set the example to College-teachers should be himself able to and should actually impart high-standard teaching and be appointed to set the University papers in his own subject.

(*t.*) But supposing the University instead of appointing separate professors of its own should pick out the best men in the existing colleges and recognise them as University-recognised teachers and appoint them to set papers and to select text-books, don't you think the same end would be served? Yes—but on the condition to which I have specially referred, namely, that the recognised-teacher should be able and should actually impart "high-standard" teaching to his pupils.

(*u.*) In what way do you think it is possible to encourage, stimulate or enforce such high standard teaching? By means of "high standard" examinations,—understanding the expression, *high standard*, only in the sense in which I have explained it [*vide* question (*q*)] and by appointing as paper-setters the high-standard" lecturers or teachers; and thirdly, by devising a scheme whereby particular college-teachers who are competent to impart "high-standard" teaching and who on agreeing to impart such teaching may *during the period of such teaching* be classed into a special body of University-recognised college-teachers—being invested with special powers and privileges by the University. And fourthly, by requiring that candidates for Honours in any subject in Degree examinations must have read with a University-recognised teacher in that subject and be able to produce a *qualifying certificate* from him to that effect. These are very briefly the general principles of the scheme.

VII.

COURSE OF HIGH-STANDARD TEACHING BY THE UNIVERSITY RECOGNISED COLLEGE-TEACHER.

In my sixth article, I explained in a general way what I mean by high-standard teaching—which when it is imparted by a college-teacher would

alone make him eligible for recognition by the University as a recognised college-teacher. The central idea which runs through all my articles is that there must be devised some means whereby youngmen who could think, observe, study and work independently for themselves should be specially rewarded by the University; while those whose minds are only "stuffed with the thoughts of others" should only be given an inferior place. It is clear, however, that it is always necessary and advisable that pupils should be enabled to study, understand and appreciate the thoughts of *others*, and that it is unreasonable that they should be called upon to think and work for themselves without having had opportunities of learning how others have thought and worked, as evidenced by their writings. But I want to make it clear that the mere reading of a book and "acquiring" its contents with a view to pass an examination which tests only such "acquiring" is one thing; while the study of a book with the intention of stimulating one's talents, power and capability—with a view to bring into activity what is within him—is another thing altogether. In the former case, the "acquiring" of second-hand thoughts is the end in view; while in the latter case, it is a means to an end, the end being the development of the higher intellectual faculties. The reading with a teacher or under his guidance standard books must not, therefore, be proscribed, but on the contrary, must be encouraged; *provided always* that the teacher so controls his pupil that the object of his reading becomes the stimulating and development of his own powers and faculties. Whence it follows that the teacher himself, in order that he may see the right example to his pupil—must not be a mere encyclopœdia of others' thoughts—a merely book-learned man—but one who sets before himself in his own case the end which he wishes to inculcate to his pupils. He must be able not only to direct the course of their studies in the required direction, as explained; but his own studies, observations, lectures and work must show that he himself practises what he preaches. The course of high-standard teaching by the University-recognised teacher, therefore, naturally falls under two heads: (*a*) directing the work of the student with a view to lead him along lines of independent thought, observation, study and research: and (*b*) doing some work of his own and placing before his pupils the methods and results of his own with a view to inspire them with the spirit of original work with which he is himself animated.

I will begin by taking up the question of the University-recognised teacher's own work. By way of illustration, I will take up the subject of Economics and show in what way the recognised College-teacher may help the cause of true education of his pupils. Under the existing system, the Indian college-teacher usually gives only summaries of portions of text-books prescribed, or notes which are also summaries of other books. In many cases, as when called upon to teach the M. A. Degree candidates, he simply dictates notes or leaves them to study for themselves: I do not object to the college-teacher's asking his pupils to read books for themselves,—that is good so far as it goes;—but at present, there is absolutely no attempt on the part of the College-teacher to guide and supervise the work of the student along lines of independent thought, observation and research. The B. A. Degree and M. A. Degree candidates know full well that what would pay in their examinations would be not independent thought, work or study, but their ability to "acquire" what has been said by others. While his college-teacher who sets the University-paper does nothing to show, either by precept, or by personal example, or by the character of the questions he sets for the University—that he himself sets any higher value on education or training as contra-distinguished from bookishness or barren brain-work—brain-work that could produce nothing original. I have described the existing state of things: under a revised system, the College-teacher on whom the University would confer the high title of "recognised-teacher" must show by the kind of lectures he delivers that he is an original worker in the chosen field of his work—and that he is therefore fit to train his pupils along lines of original work, thought and observation in that field. His lectures must not be mere compilations, but must above all things be fitted to inspire his pupils with a genuine love for, and interest in the subject on which he lectures. Confining myself to the subject of Economics in relation specially to Western industrial problems—the University-recognised teacher in his lectures may be expected to give the result of *his own* thought, research, study and observation on question like the following:—

(I.) Growth of the modern system of Industry and Commerce,—Structure of modern industry.

(II.) The Land-question—population and subsistence—rent large and

small holding,—the agrarian question in England, India, France, Germany and Russia contrasted.

(III.) Growth of capital—joint-stock enterprize in England before and since the introduction of the principle of limited liability—forms of joint-stock enterprize in other European States.

(IV.) Present state of manufactures in India and in England.

(V.) The organization of industry—the Factory system and domestic system—problem of Labour *vs.* Capital.

(VI.) The policy of different States including India with regard to the provision of facilities for transport, railway and canals.

(VII.) Banking and currency; credit-agencies—international trade.

(VIII.) Home charges for India—Re-organisation of real credit in India and in other countries.

(IX.) Free trade, fair trade and protection.

(X.) Indian Foreign Emigration.

(XI.) Land Legislation in India and foreign countries.

(XII.) Labour Legislation in India and elsewhere.

(XIII.) Leading principles of public finance—Bimetallism—monometallism—Gold standard—Indian Currency Legislation.—Financial Statement of the Government of India.

((XIV.) The regulation of industries and commerce—(1) Voluntary association, co-operation, Trade-Unionism, Formation of monopolies in capital—Trusts—Employers' Federation;—(2) Legal Regulation—Factory Acts. Collectivsm and Socialism.

(XV.) Methods of dealing with pauperism in different countries—population question—old age pensions, employer's liability and workman's insurance.

(XVI.) Relation of statistics to economics; the bearing of economic History on the investigation of the present-day questions, the general character of the method employed.

(XVII.) The laws of evidence in relation to economic investigation: how to set out an enquiry: the collection and tabulation of information.

(XVIII.) The interpretation of Statistics—the use of hypothesis; the construction of Blue-books.

XIX.) Review of Census statistics.

Having given the reader an idea of the kind of lectures which, under my scheme —the University recognised College-teacher would be expected to deliver to pupils—in order that the University may be lifted out of the mire of dogmatic or routine teaching and routine examinations into a purer atmosphere of study and research, of thought and observation, I need hardly point out that to achieve this end, *it is absolutely necessary to take the most effective steps to secure the purity of the body of recognised-teachers*; and secondly, to make regulations touching the qualification of and the previous course of instruction to be followed by and the rewards to be given to candidates for Honours in the Degree Examinations to be conducted by the recognised College-teacher.

VIII.

CONDITIONS OF WORK FOR THE UNIVERSITY-RECOGNISED COLLEGE-TEACHER.

I have in my last, taking up for purposes of illustration the subject of Economics, gone into some actual details as to the contents of the "high-standard" lectures to be delivered by the University-recognised College-Teacher in Economics. I might similarly take up other subjects and show that, in every instance, high-standard teaching should not consist merely in the ability of the teacher to give to his pupils what others—possibly great men in their special branches of study—have written but in the ability to give his own personality to his work—in his delivering on the subject of his special study something which is most real to himself, which is most deeply felt by himself. Such teaching alone can arouse faith, earnestness, enthusiasm in a young and healthy mind—like that which the College-student may be supposed to possess in the first instance,—but which under the strain of conventional or dogmatic teaching and routine examinations is bound to die away. "If," says an Anglo-Indian writer in the press, "we examine the depreciatory criticisms launched against the graduates of our universities, we find them mostly directed against variations of a single deficiency—namely,

that young India is enthusiastic for nothing. High thinking is at present the vital need of New India." In this most of us will probably agree ; but what most of us are not specially aware of is that if our University graduates are unpossessed of enthusiasm—it is the natural, the inevitable result of the training they have undergone at the hands of the College-teacher and the University as represented by the University paper-setter who is in most cases a College-teacher.* For, the College-teacher is also like his pupil enthusiastic for nothing, and high thinking is in him as much a desideratum as in the case of his pupil. If the College-student does not study authors, but is content only to read books, it is because the College-teacher or the University as represented by the College-teacher of a paper-setter hardly sets the example. If a book is read critically by the College-student, in order to learn what there is in it only, and not in order to find out what manner of man he was who wrote it, it is because, the College-teacher and the University as represented by the College-teaching paper-setter set no better or inspiring example. And in the absence of such example, all the life-giving interests, all the great stimulants to self-development are lost, or are replaced by all the more subtle evils of dogmatic teaching and routine examinations, such as the strengthening of the rote faculties to the neglect of the rational faculties, the rapid forgetfulness of knowledge "acquired," the cultivation of quick superficiality and power of cleverly skimming a subject, the consequent incapacity for undertaking original work, the desire to appear to know rather than to know, the forming judgment on great matters when judgment should come later, the dependence upon highly-skilled guidance, the belief in artifices and formulated answers and the mental disinclination which supervenes to undertake work, which is not of a directly remunerative character—after the excitement and strain of the race ; and so on and so on.

It is for this reason principally that I have been at such pains to impress on the minds of the members of the Universities Commission what, indeed, appears, rightly judged to be a commonplace—namely, that it is necessary to take the most effective steps to demand a high-standard teaching qualification for a University-recognised College-teacher, in order to secure the *purity*, *i.e.*, to ensure the collective efficiency of the body of University-recognised teachers. The Vice-Chancellor of the Calcutta University in his recent Convocation Address speaking on the subject of forming a list

of recognised teachers remarked in a very general way that the rules should be such that youngmen should not assume the responsibility of teaching history or philosophy or science until they have shown their qualifications and been duly accepted. My humble submission to the distinguished body of educational experts over which the Vice-Chancellor presides is that in forming the first list of recognised teachers,—that which would be, so to say, the very nucleus of a larger and growing body, and which may be expected to foreshadow the character of all future appointments,—a very high standard of teaching qualification should be demanded. If a high-standard qualification be the *sine-qua-non* for admission to the body of recognised teachers, the purity and *esprit-de-corps* of that body would be secured, so that the dignity of that body shall not be a mere *protected* dignity—but such as could bear the light of the severest public criticism. We must in fact go back to the earliest conception of a Master (M. A) who before making a formal entrance upon and commencement of the functions of a duly licensed teacher must be recognised as such by the brothers in the profession. While the previous stage of his academic career was that of "bachelordom"—*i.e.*, of apprenticeship for the "mastership," his emancipation from the bachelor's state being signalised by placing the Master's cap upon his head, when he gave the formal inaugural Lecture and was welcomed into the body of professsional brethren with set speeches and took his seat in the Master's Chair.

I would humbly submit that in framing the rules for appointment to the body of University-recognised teachers, the high ideal of a Master should be strictly kept in view—and even, if possible, certain forms and ceremonies to emphasise the importance, dignity and responsibility of the high office of a University-recognised teacher should be instituted. With this preamble, I would submit for the favourable consideration of the Universities Commission—the following suggestions and observations to help in the framing of the rules to which I have referred.

Firstly.—I would suggest that it is, in the first instance, extremely desirable that a College-teacher before being appointed or elected as University-recognised teacher should be required to furnish some proofs of having done some original work himself in his own department of studys. Where these proofs are wanting *in the first instance*, they may be forth-

coming sometime after, under prescribed rules, but I would give special weight to the claims of a candidate who can, *in the first instance*, furnish such proofs.

Secondly.—The appointment or election by the University of a teacher in a College as a University-recognised teacher shall be limited to a period of not less than three and not more than ten years; but it shall be eligible for such teacher to offer himself for re-election or re-appointment at the expiration of his term of office and may on sufficient cause shown be re elected or re-appointed by the University for a similar term of office.

Thirdly.—The "sufficient cause" to be shown by the recognised teacher would be the due discharge of some specific, prescribed conditions of work for such teacher during the period of his incumbency.

Fourthly.—Under the specific conditions of work, I would include specially the delivery by a recognised teacher of a regular course of lectures in a particular subject in which he is recognised by the University as a recognised teacher.

Fifthly.—The regular course of lectures shall have to be printed and published by the recognised teacher and duly submitted to the University from time to time.

Sixthly.—The University having conferred the title of recognised teacher on any particular teacher, it shall be made obligatory on all affiliated colleges to recognise him as such.

Seventhly.—The recognised teacher shall be an *ex-officio* Fellow of the University and shall represent in the University either personally, or by proxy,—who must be a Fellow himself,—the particular College to which he is attached during the period of such Fellowship.

Eighthly.—The entire body of recognised teachers or special sections thereof shall be vested by the University with powers to set papers, appoint text-books, and in other ways direct the course of education in Colleges and Schools affiliated to or recognised by the University.

Ninthly.—The preparation of the first list of recognised teachers for a particular term of office may be left in the hands of a body like the Indian Universities Commission specially legally empowered for the purpose; but for the future, election or re-election of recognised teachers should be

left in the hands of the. University Fellows who shall have to exercise their power under special authority and under fixed and special rules of procedure. Such election or re-election by the University shall by law be made subject to revision by or appeal before a body specially empowered under the law and at the option of the candidate.

IX.

FALLACIES AND OBJECTIONS.

My idea of reform of University education in India may be summed up in one word—reform in the system of teaching; under which are included three separate but inter-related reforms: (1) Appointment or selection of "high-standard" or recognised teachers; (2) their appointment as paper-setters and the vesting in them of all authority and control over the general management of the educational work of the University; and (3) the making it obligatory upon them to satisfy certain specific conditions of work. A scheme of reform which does not make provision for or foster and encourage a high standard of teaching would be essentially a patch-work, a palliative, would be unsound at the very core. If it is said that the high standard of work which I propose (*vide* my articles Nos. VII. and VIII.) is very high and that, therefore, there are not very many competent men to undertake the high duties of the office of "recognised College-teacher" as contemplated in my scheme, my answer is that we should begin with demanding a high standard of qualifications and high-standard conditions of work for the University-recognised teacher; and if the number of those among College-teachers who would be willing to offer themselves for appointment to the office be too small at the beginning, we should not despair, but on the contrary there should be the greater reason to persevere. No far-reaching reforms have ever been effected by yielding to the circumstances of the moment. I have tried to place before the members of the Universities Commision an idea of the kind of teaching which we should demand and expect of "recognised teachers." If you lower the standard of teaching by not providing for the admission and maintenance of a body of high-standard teachers; if you merely appoint as recognised teachers men who have not given or cannot or are not willing to give proofs of higher abilities that may be in them,—I conceive there is no other alternative for you but to

ask the College-teacher to set papers merely to test the student's powers of "acquiring" his subject, his powers, that is of hearing and reading, remembering and believing; as under hypothesis, that is what he is *really* fit for; and having done so, to shift the burden of blame and responsibility of education on to the candidates themselves by requiring a high percentage of marks for passing their examinations. The *reductio-ad-absurdum* of the whole process is clear and convincing to every unprejudiced mind. You appoint men to teach who have no special love for their subjects, who have not given or cannot give proofs of original or independent work, thought, observation and research; you appoint them to set papers which naturally are of a kind that what is necessary for the student to do to gain distinction at the examination is merely to "stuff his mind with second-hand thoughts," and then you make atonement for your sins, you visit it upon others, the hapless victims of your system, by demanding a high minimum for a pass.

It is wholly forgotten by most of us that the necessity for raising the minimum higher and higher for a pass arises only because your questions are of the wrong kind. Supposing your questions are of a kind that they can be best answered by students who have a superabundance of memory-power, why, then, of a certainty, the boys reading in the lower forms of our schools would have better chances of winning success and distinction at the *University* examinations than your University graduates and under-graduates. And then possibly it would be suggested that what is necessary to reform University education in India would be to raise the minimum for a pass as high as possible. If your questions test only acquirements and memory-work, and if your teacher —call him by what name you will—be only fit for cramming his pupils with second-hand knowledge, the cause of higher education in India would not be furthered by your saying that you will not alter the style of your teaching and your examining but that the number of your passes would be relatively small, unless the students at the different colleges know how to help themselves either by a mysterious process of training *on their own account*, which their teachers have not the leisure, inclination or ability to impart, or by an extra dose of desperate cramming in which their teachers and the key-makers and annotators (who are in too many instances college-teachers) are so very ready to be of service to them. But supposing

you take to the opposite course; you try to discover men who have given or can give proofs of original work, thought, observation and research and appoint them as your "recognised teachers" provisionally, *i.e.*, for specified periods, and give them all power and then ask them to be equal to their high duties in the matter of teaching and examining,—but you do not raise the minimum for your pass, *then* you will find that in due course your present minimum should be found to be too high, and that the course of true education in India would not be impeded or arrested even if you lowered that minimum and that it might even so happen that, *under the new conditions I have mentioned*, a failure at any particular University examination would not mean such downright imbecility as is said to characterise the undergraduates and graduates of an Indian University.

Therefore, if you can find the right sort of men willing to abide by your conditions of work, appoint them as University recognised-teachers, provisionally of course, *i.e.*, with a provision for re appointment; for we must feel our way and see how the experiment works and let some method be devised to separate the better class of our young men from the vast majority of their fellows and to make it obligatory upon Honour students to read with a University recognised teacher, and to require that a qualifying certificate from a recognised teacher should have to be produced by a candidate desiring to appear at the B. A. Degree Examination and offering to be examined in an Honour subject.

I must, in passing, meet one particular objection to my proposal of making all Honour students read with the University-recognised teacher. It may be said that as I propose to limit the number of recognised teachers by demanding a high standard of work and qualifications and imposing specified conditions of work—such as have special connection with the delivery and publication of a course of lectures on the recognised teacher's subject, giving results not only of his reading, but also of his study, observation, thought and research on the same—it may be objected that the conditions aforesaid would unduly limit the number of recognised teachers in my scheme and would accordingly limit the number of Honour candidates willing to go up for the examination, in case it should be made obligatory upon them to read with the recognised teacher. My answer is this:—

Firstly.—If the right sort of men possessed of the high qualifications of a recognised teacher are not forthcoming, let us begin with those whom we can get and find out by a specially devised scheme a body of *specially* qualified students fit to receive instruction and be trained by them: I would call these "honour students"; for these would be really properly trained and educated. Your present-day Honour students do not receive such training and education as is contemplated under my scheme.

Secondly—If you begin by stating that at present we cannot get a sufficiently large number of men to do the duties of a recognised College-teacher, you assert that in the existing state of things, no high standard training or education could be given to a large body of candidates even if these last could be obtained from among College-going students in large numbers. In other words, the properly-qualified trainers would be too few while the properly-qualified candidates offering to be trained would be too many. And in this state of things you propose that we should depreciate the intellectual currency in either of two ways:—(*a*) Allow the properly-qualified candidates to read with college-teachers who do not come up to the high standard of a University-recognised teacher—and then say that they have been trained under properly-qualified men when after a specified course of instruction under the inferior men you allow them to appear in the Honour examinations. Or, (*b*) you may not insist upon the high qualification of high standard teaching as I propose—but by relaxing your conditions, you may admit a large body of men to whom you give this title of recognised teacher and allow the properly qualified candidates to read with them: In either case, as is obvious, you do not improve the character of your teaching by demanding a high standard of work from the teacher, but you are anxious above all things to achieve certain *nominal* results,—by giving an inflated or artificial value to the products of University education—by calling men as trained and educated under proper conditions when, *under your very hypothesis*, they are not so trained and educated. Where there is such an undue anxiety to shew results apart from their intrinsic value, it is needless to say that the cause of University education must suffer.

My idea, however, is that although there might be some *initial* difficulties in the launching out of my scheme of high-standard teaching

under high-standard teachers, the difficulties would disappear, *once* the new system has been seen operating for some time, and that then from amongst the body of teachers in our colleges, both private and Government, there would be found a sufficient number of men who, when the dead-weight of the present system has been removed and both teacher and pupil are enabled to breathe a purer and freer air,—my idea is that under a new impulse when it has communicated itself into the whole educational body, a larger and larger number of men would be forthcoming,—willing and qualified to take their proper places as University recognized teachers with whom the work of training and educating the Honour Students shall principally lie. In the meantime, to tide over difficulties, but as a temporary measure, the University might import the proper men on its own account, men who would fulfil all the high conditions of University-recognized teacher and depute them to lecture at different centres in the Moffusil in connection with different colleges or groups of colleges, so that the supply of University-recognized teachers might be commensurate with the demand for them, in case the Honour students are too many. If it is not possible for the University to appoint *on its own account* such recognised teachers as aforesaid, in appreciably large numbers so as to keep pace with a possible demand for them in the Moffusil, Honour students must either migrate to centres where there is the requisite supply of recognised teachers, or they must do without education under a recognised teacher. But in no case should the cause of high education be made to suffer by lowering the standard of teaching to be required of a recognised teacher or by lowering the value of an Honour Degree by conferring the same on candidates who have not obtained the advantages of training under the University-recognised teachers.

My last submission is that in case the Indian Universities Commission should *not* consider it advisable to alter the character of the Honour examinations by requiring that a candidate offering an Honour subject shall have to be trained under a recognised teacher and to produce a qualifying certificate from him; my submission is that keeping intact the existing system, we can create a new class of Honour students with a special name,—namely those who will have opportunities of undergoing training under a recognised college-teacher, giving preference to these in matters of scholarships &c. This would at least be introducing the thin end of the

wedge—the beginning of the end towards the reconstruction of Indian Colleges into teaching agencies—their conversion, that is, from their present character of coaching establishments into true teaching bodies.

And this would at once lead me to the consideration of the kind of training which the recognised teacher may be expected to impart to his pupils.

X.

CONDITIONS OF TRAINING UNDER A RECOGNISED TEACHER: "THE QUALIFYING CERTIFICATE."

Having in previous articles treated at some length of the qualifications of men who under the high title of University-recognised teacher would direct all University teaching in the country and impart to it a high tone and purpose, I proceed to determine the previous qualifications of the young men who will undergo training at the recognised teacher's hands, and who when they will have received their degrees after undergoing such training will be placed in the very first rank of University graduates. The period of training of this special class of graduates may be divided into two parts:—(*a*) Period of previous training: (*b*) period of training under the recognised teacher. Before proceeding to deal in some detail with this question of training, it is necessary at once to strike the key-note and to give what I consider to be the very essentials of training; for the qualifying certificate to be produced by the special Honour candidates derives all its importance and its value from the character of the training which, above all things, the certificate should tell. And the proposition with which I start is that the qualifying college-certificate should tell what an examination by the University can never tell or can tell in very small measure, indeed. The University examinations do reward industry; but we have to inquire in to the motive for this industry,—we have to inquire, that is, whether the labour was undertaken, the work was done under the strong incentive of eagerness for success, or under compulsion, or in the absence of temptation; for under other circumstances, as when the University examinations have been completed, the youngman's zeal might flag, as is very often the case with Indian students. *Energy, good mental habits and tastes go far to make a man what he is, and of these examinations tell us nothing.* The energy of the

more successful of our Indian graduates is very often of the spurious or spasmodic kind. Taking even the commonest and most superficial test of education, namely, a taste for reading and desire for information in the hope of deriving moral, intellectual or material benefit from such reading or information, the fact that even the metropolis and the intellectual centre of intellectually advanced Bengal has to let its only public library founded by the zeal of an Englishman die for want of support, and to be revived by the energy, public spirit and farsightedness of an Englishman who now holds the destinies of this country, the fact also that it cannot boast of a single paper or magazine with anything like a staff of trained writers or a public willing to pay for their labour is proof positive that not only the education but even the reading habit of educated India ends with his College course. If the effect of education is to quicken and inform the intellect and make it eager for further advance in knowledge; if the effect of education is to create a wish for the growth of literature, the cultivation of the arts, the spread of manufactures and the general diffusion of knowledge and taste by means of libraries, museums, literary and scientefic societies, well-conducted periodicals; respect for merit, irrespective of worldly conditions, or a disregard of the blandishments of unrighteous wealth, then, indeed, must it be said that the University-educated India has to be educated still and under improved methods.

Therefore, the training under the recognised teacher must consist in developing in the Honour students good mental habits and a taste for his subject, and the "qualifying certificate" should tell the University how far the Honour candidate has profited by the lectures and the guidance of the recognised teacher; how far that is, the teacher has been successful in developing good mental habits and tastes and energy in the student who applies for permission to appear at the University Honour Examination. The qualifying certificate should run in this form :—

'Mr. A. B. has read with me......(here give the subject) for......(here give the number of terms) and has given me satisfaction by faithfully carrying out my instructions. I am of opinion that he has been able to profit by my lectures and the course of training which he has undergone, and I accordingly consider him a fit and eligible candidate for the ensuing University examination in......(here give the subject and the name of the examination)'.

And in a footnote to the above I would insert the following explanatory statement:—"No one is to be considered a fit and eligible candidate for a University Honour Examination who, in the opinion of the University-recognised teacher has not been able to develop a taste for his subject and good mental habits."

Having given the essentials of the training to be received by the Honour student, namely, the development of good mental habits and of a taste for his subject,—I will go into some detail as to the methods whereby the object might be secured. *First*, the recognised teacher would examine a candidate on his own account and see whether, in his opinion, a particular candidate has the necessary aptitudes, powers and acquirements which should make it possible for him to carry out the instruction, and immediately undergo special training at the hands of the recognised teacher.

Secondly:—If, after such examination, he is admitted to such special training—the student should be given to understand that he will have to read certain chief books or portions of books in his subject—with or without reference to the books recommended by the University,—and the whole period of instruction by the recognised teacher being divided into particular terms—the student will have fixed work allotted to him for particular terms. *Thirdly*, the student will have to read his books under the special direction of the recognised teacher, and the teacher will have to grant to every one of his pupils a *written* expression of opinion at the end of each term as to how far the pupil has been able to satisfy the condition of work imposed on him by the recognised teacher. *Fourthly*, the student will be required to write out fortnightly or monthly papers on a subject appointed by the teacher and read them out to him and will also be required to orally discuss the same with him. I would attach special importance to this oral discussion as this would be a very good training for the Honour Student, and further as a preparation for the University *viva-voce* test which in my scheme I would make obligatory upon every Honour candidate. (See article No. XV.)

Having done with the scope and character of the training under a University-recognised teacher which I should enforce on the Honour candidate, I would describe the "previous course of instruction" to be received by him. For this I will refer the reader to another article.

XI.

THE TUTORIAL SYSTEM.

At Oxford or Cambridge, every student as he enters the University by being admitted into a College, is assigned to a tutor, who throughout his University career has complete control over his work, advising him as to what books to read, what lectures to attend &c., besides assisting him in his work. It is evident that the College Tutor plays a very important part in the English University system, while his efforts are further supplemented by the coach. Between the coach, the tutor, the Lecturer and the University professor (the lecture of the last being, *so far as the vast majority of students are concerned*, either supernumerary or ornamental), the English University keeps the machinery of academic education going in vigorous life. It is easy, therefore, with the example of English Universities like Oxford and Cambridge before us, to suggest that the salvation of an Indian University lies in the wholesale adoption of the entire programme from the West. But it is necessary to consider that such adoption would be financially prohibitive, even it were otherwise desirable. It would be at once far too costly for everybody concerned, for the University, for the College and for the Indian student. Even the institution of the College Tutor for Indian Colleges would not be, even if financial considerations were ignored, calculated to be of such service as *a priori* arguments might lead us to suppose. The function of the English College Tutor I have in my humble way performed in an honorary capacity in my relations with various classes of youngmen reading for University examinations in Calcutta, and in every case I have found that my work has been of a most uphill kind, principally because the system or style of examining by the University and the system of teaching by the College lecturer or "professor," as he is more usually called here, are of a character that leaves the honest learner and the honest "tutor" completely at the mercy of some uncontrollable and uncontrolled agency. My experience has been, as I have said, with various classes of College students, some of whom have already won distinction at the Indian Civil Service and the University examinations in England and some of whom are yet undergoing training in England after having distinguished themselves in the Calcutta University, besides many others who are preparing for the higher examinations of that University;—and this experience has been uniformly

of the character that, to prove of real service to my students, I must chalk out an independent path, that I must prescribe a course of instruction which is not subsidiary or supplementary to the College course, but which must be quite of an independent character, which must stand on an independent footing. If the present "system" were kept intact, the "Tutor" must either give in and become part of the "system;" or he must assert himself and induce the student to assert himself in the matter of teaching and studies—whatever may be the results in the University examinations. Therefore, I must insist that the question of reform of Collegiate education does not begin with the adoption of the institution of College-Tutors as it obtains in the West, but that such adoption may follow, but can never precede the more vital reform of Collegiate teaching by means of "high standard" lecturers and of University examinations with the help of the *same body* of College lecturers. And I would go even so far as to contend that the institution of College-Tutors as a separate body becomes necessary as a general or comprehensive remedy, *only* when the system of classification of students, of division of class from class, of their separation in studies under the system of college teaching and University examinations has not been of a sufficiently thorough kind. And, therefore, in my opinion, the college *tutorial system* is not to be adopted to remedy the defects that may be found in the qualifications or capacities of the College Lecturer; or the defects in the system of University examinations, but that it must be adopted as a sort of what may be described as a "residual remedy"—as a general provision to afford such helps as may be necessary to enable the student to help himself. For the main thing, I must repeat, is to reform our system of teaching and of examining, so that from the point of view alike of the teacher and the student, work shall be more a source of pleasure and profit than a burden; with the result that there shall be more of life and energy in teachers as well as students, and less of apathy and monotony, less of the mechanical or the routine element in their labours.

XII.

"PREVIOUS COURSE OF INSTRUCTION" FOR HONOUR CANDIDATES: SOME GENERAL PRINCIPLES.

In determining the previous course of Instruction for Honour students, we require to look at the question as part of a whole. For the Honour

course marks the upward limit of a course of academic studies; and it is in relation to those who do not or cannot reach the higher standard, but are by want of natural parts or other circumstances forced to remain at the lower ranges of the ladder—that the course of present instruction, and also of previous instruction for Honour students as expressed in terms of University tests—have to be determined.

On the occasion of the recent debate on the Financial Statement by the Government of India (March 26, 1902), speaking with special reference to the Indian Universities Commission, Lord Curzon said—"There is one considerarion that I would ask the public to bear steadily in mind. Education, if it is to be reformed, must be reformed for education's sake, not for the sake of political interests, or racial interests, or class interests, or personal interests. If that golden rule be borne in mind both by the Government and the public we shall get through. If it be forgotten, then the most strenuous of effort may be choked with disappointment or may perish in recriminations."

There is no doubt that the rule laid down by Lord Curzon is golden; and must be carried out at all costs. But the rule seems to be laid down in India at least for the first time by the Government of Lord Curzon; and in the meantime vested interests have arisen, wrong motives for academic education have been created, which can neither be grappled with nor uprooted in a day; and in determining the course of the University for the future, the course of that Institution in the past must have to be taken into account in order that that the gulf between the past and the future may not remain unbridged. Although the Act of Incorporation declares in the Preamble that the establishment of the University of Calcutta was due to "a desire for the better encouragement of Her Majesty's subjects in the pursuit of a regular and liberal course of education," still the whole previous educational policy of the Government may be summed up in the words of a despatch from the Court of Directors to the Governor-General, dated 29th September, 1830,—

"There is no point of view in which we look with greater interest at the exertions you are now making for the instruction of the natives than as being calculated to raise up a class of persons qualified by their intelligence and morality, for high employments in the Civil Administration of

India;"—supplemented by the following recommendation of the Council of Education, the immediate ancestor of the University of Calcutta,—

"The absence of any efficient mode for affording an extended professional education to our most advanced students is beginning to be severely felt and to force itself upon our attention. The establishment of a University with Faculties of Law, Arts and Civil Engineering could supply this desideratum and fit our more proficient pupils for devoting themselves to the pursuit of learned practical professions in this country." (*Annual Report of the Council of Education, for 1844-45*). The circumstances, therefore, that led to the foundation of the University all tend to show that it was intended in the first instance to supply the State with a class of educated young men capable of filling the various grades of the subordinate civil services, of "holding the higher offices open to natives after due official qualification and of commencing the practical pursuit of the learned professions;" for it is declared in the same Annual Report from which the above is taken, that "*the only means of accomplishing this great object*, is by the establishment of a central University, armed with the power of granting Degrees in Arts, Science, Law, Medicine and Civil Engineering."

Therefore, it appears that throughout the better part of a whole century under British rule a force has been created tending to place a high market-value upon University instruction as being the only passport to official recognition and distinction. While therefore fully recoginsing and appreciating the ideal set up by Lord Curzon, I submit that it would be unwise in any practical scheme of University reform not to give due weight to the fact that every form of University certificate has its market value; and giving this due weight and so conciliating public sentiment and ensuring public co-operation, it would still remain open to us to frame our proposals for a true scheme of education under the auspices of the University. The Indian educated public will, I conceive, naturally take some time to grasp the significance of Lord Curzon's declaration that—"Education if it is to be reformed must be reformed for education's sake and not for the sake of other interests." And therefore so long as the market-value of the University certificate stands at a high figure in public estimation, we cannot ignore the fact; but if we do so and build our edifice of reform upon such non-recognition of fact, the struggle for a lowering of standards, the struggle for power in the

senate among opposing coteries—the bringing to bear upon Fellows and everybody concerned all sorts of undue influence in a desperate fight between the outside Indian public and the Indian University authorities—all this and more will, sooner or later, make themselves painfully felt. Therefore, recognising the above circumstance of a University certificate having a prestige all its own, that is a high market-value, which it has acquired through the long, long years of official recognition,—I would not oppose it in the face, but would try to overcome it by every manner of indirect attack. The wisdom of my position will be understood when we remember that at present the University Entrance test is regarded as a sort of *unit*, and proficiency even in newly instituted examinations by the Government is sought to be expressed in terms of that *unit*. Thus, the recent introduction of the elements of Commercial Education into our High School system by the Bengal Government will be followed up by a course of recognised examinations by that Government ; and it is announced that a certificate of proficiency granted to a successful candidate at the Government Commercial Examination will be regarded by the Government as equivalent to the University Entrance certificate. Therefore, the University Entrance Examination being made to do other duties besides the proper one of a University examination for testing competency to enter upon collegiate life, I would like to "demonetise" it and set up a sort of a gold standard for those who would desire to enter the University. But even here I would follow the line (by adopting the indirect plan of attack) of least resistance, as I have already explained.

First : let us have the Entrance Examination as usual ; but with this innovation that there shall be two sets of papers in every subject, (1) General Papers with comparatively easy and general questions, and (2) Special Papers.

Secondly, that no candidate will be deemed to have passed the Entrance Examination unless he has passed at least in the General Papers in all the subjects.

Thirdly, candidates wishing to enter the University must have passed in at least two of the subjects in the special papers and also in the other subjects in the general papers.

Fourthly, a candidate failing in a 'special-paper subject will be deemed to have failed in the Entrance Examination ; and there should *not* be instituted any system of equivalent marks. This principle is most im-

portant in my scheme, as making it clear that the aspirant for University education must be judged by an absolute test. If the principle of equivalence, for purposes of converting one class of proficiency to another, were once introduced, the demonetisation I have spoken of will not have been effected ; while at the same time the Entrance Examination in the special papers will have lost the exclusive value which I would attach to it as being the *University* Matriculation Examination. It would be just as if there were two separate examinations by different and independent authorities, such that success or failure at one shall have nothing to do to determine success or failure at the other. My idea then is that the Entrance Examination has not hitherto been a true *University*-examination, but has been a sort of a general test, for reasons mainly of a political character as I have previously explained. Whence the Entrance certificate has passed current in the Indian market as a common measure of value. For the future, however, as I have said, it is necessary to bring about a separation of functions by instituting two independent and incommensurable tests (as explained above) although both will come under a common designation, under my scheme.

In opposition to my plan of a common University Entrance Examination, it may be proposed that the University should not concern itself with any sort of examination that is not immediately meant for those who have no intention of entering the University. My reply is that the University Entrance certificate has already "acquired" a high market-value ; and it would be sometime before a certificate emanating from any other authority would possess an equal value. Therefore, so long as the University enjoys the *prestige*, certificates from it will be in *demand* ; and unless there are open legitimate ways of getting at them, means will be found by the guardians of candidates to force a supply by means of a lowering of standards of examinaton, by the device of "grace" marks and so on ; and then in the words of Lord Curzon, "the most strenuous of efforts at University reform may be choked with disappointment or may perish in recriminations." [*To be continued.*]

EDITOR.

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THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

WHOLE No. LIX. } CALCUTTA, JUNE, 1902. { No. 11. VOL. V.

AN EXAMINATION INTO THE PRESENT SYSTEM OF UNIVERSITY EDUCATION IN INDIA AND A SCHEME OF REFORM.

[*Continued from page 320, Vol. V.*]

"PREVIOUS COURSE OF INSTRUCTION" FOR HONOUR CANDIDATES: SOME GENERAL PRINCIPLES—XII.

And as for the Entrance, so also for the F. A. Examination of the University. There ought to be two sets of papers in each subject—the general and the special papers; the former being comparatively simple, short and easy; the latter demanding the exercise of a developed intelligence. Those who aspire to go in for higher—*i.e.*, the Degree studies must have to take up two *special* subjects of their own choice, the rest being *general* ones; and it should be made absolute that there shall be no conversion from one standard to another, candidates failing in a "special" subject being deemed to havefailed altogether at the examination of the year. The principle on which I base my recommendation of having two sets of examinations as aforesaid for the F. A. is that there shall be many amongst eligible candidates who have entered the University, who may be disabled on account of various causes from rising to the higher ranks of the academic ladder, but who would nevertheless find it depressing to stop only at the University Entrance. The same causes operating, the same consequences follow;—the market value of having passed a higher University test than the Entrance, (so long as the University enjoys its present prestige) making it necessary to issue university "proficiency" notes to all candidates who without aspiring to

University Degree Honours still look to some sort of University culture as a passport to social and other kinds of distinction. I fancy the motives which would prompt a candidate to study for the F. A. without aspiring to go up higher are neither to be despised nor to be ignored. For, so long as the demand for a higher form of University certificate than the Entrance exists and continues (while you prescribe the *same* test for the *University* as for the *non-University* candidate) the process of equalisation between the *supply* and the *demand* will continue, to the detriment of the true *University* F. A. test which, in the absence of the lower *general* test which I propose, will slowly undergo a process of undermining or continued depreciation.

It may be supposed that a shorter method of differentiating the two classes of candidates who under my scheme are known as special and general candidates for the Entrance and F. A. examinations, may be found in setting the same sets of question papers but in demanding a higher percentage of marks from special students, and a lower from the general student ; while everything else in my scheme may be allowed to stand. Now, I object to setting the same papers to both classes of candidates for the following among other reasons :—

(*a.*) I have pointed out in a previous article that so long as the University question paper remains as it is, a higher percentage would practically mean, or would assuredly involve an extra dose of cramming

(*b.*) *Secondly*, supposing the questions set were of an improved character, demanding and rewarding something higher than bookishness, the class of candidates whom I have called general candidates will be needlessly required to undergo a test which the University would specially devise for those whom it would like to train up on its own account. For there is no reason why the same examination should equally apply to *all*, seeing that that examination would be specially intended for those whom the University would like to take under its special protection.

(*c.*) Besides obviating the "needlessness" to which I have adverted, I submit that if there be adopted the system of two altogether different and inconvertible sets of papers, there would be some special gains and also the prevention of some special risks. *In the first place*, in setting a paper which is intended for both classes of candidates, there might be an unconscious tendency on the part of the examiner to make it of a *mixed*

character, and so to lower the standard for University candidates. *In the second place*, the setting of a common paper would of itself have a natural tendency, notwithstanding the differences in the required percentages of marks for different classes of candidates, to place both classes of students under a sort of a common category, and to make it appear that the differences between them are differences only in degree ; whereas under my system, provision in respect of separate papers and also against conversion from one class to another would have the inevitable result of making the differences between the two classes of non-University and University candidates—differences not in degree but in kind ; and so of not only raising the intellectual standard but along with it creating a sense of superior dignity, a sense of superior academic self-respect. *In the third place*, a system of general papers and special papers would enable University candidates to take up under my scheme two *special* subjects and offer the other subjects as *general* subjects ; with the result that teachers and students will have the opportunity of concentrating attention and energy on two subjects only for purpose of efficient, progressive study ; while, as for the rest of the subjects, they would have time to obtain a general working knowledge. This would ensure a course of general training and also habits of comparative thoroughness in respect of particular subjects. This would enable the student to reap all that is good in a system of bifurcated studies without the evils of narrowness and bigotry which *early* specialisation would naturally create and against which every University as a seat of liberal culture and learning should be prepared at all times to take its stand. Further, a system of general papers for all non-University candidates will remove the high strain and pressure upon the vast body of youngmen whose work in life lies outside the University, *i.e.*, in no real relation to it. Again—by instituting a system of general papers for some subjects and of special papers for others at the choice or option of the University candidate, and making the aggregate of marks in the special subjects determine the place of the candidate in the University list,—much of the strain and pressure upon the mind and body of the University candidate would be taken off or removed ; whereas if the same paper were set for *all* candidates, the University candidate would try to come off high in *every* subject, unless it were specially made obligatory upon a candidate to choose and notify beforehand the two particular subjects which he would offer as

special subjects. It would be more natural to assume that under a system of common papers, what would happen would be that a candidate will be allowed to answer every paper as much as he can, and if he is able to obtain a certain percentage of marks in *any* two subjects, he would be allowed to read for the F. A. or for the B. A. Courses, as the case may be. This would not admittedly remove the strain and pressure I am speaking of, upon the health and the mind of the candidate, and would not therefore ensure thoroughness, but would necessarily lead to some forms of cramming; as it is clear that "cramming" must come in as soon as study becomes a source not of pleasure and profit but a burden, as it must be under a system of high pressure.

XIII.

"PREVIOUS COURSE OF INSTRUCTION" FOR HONOUR CANDIDATES: THE SCHEME CONTINUED.

In order to make my position clear with reference to my proposed system of general and special papers for two distinct classes of candidates—namely, those whom I have called respectively University candidates and non-University candidates for the two examinations—the Entrance and the F. A.,—I would proceed to give the reader an idea, in some detail, of the character and scope of the questions that are to constitute the two papers. But before doing so—I would for purposes of clearness give formally my definition of University candidates and non-University candidates. —A University candidate for the Entrance Examination is one who has an intention of continuing his academic studies at least up to the F.A. standard (General Paper Standard) of the University, after passing the Entrance test; and who shall not have qualified for such further studies unless he should have passed in two subjects in the special papers and in the rest of the subjects in the general papers. All candidates for the Entrance Examination who offer to be examined in only the general papers in all the different subjects are non-University candidates. Similarly, a University candidate for the F. A. Examination is one who has an intention of continuing his academic studies at least up to the B. A. Pass standard of the University after having passed the F. A. Examination; and who shall not be deemed to have qualified himself for such further studies unless he shall

have passed in two special subjects and in the rest of the subjects in the general papers. All candidates who offer to be examined in only the general papers in all the different subjects,—are non-University candidates for the F. A. Examination.

Taking the subject of *English*—I would propose the following Model Papers for non-University candidates for the Entrance Examination. I would have three papers in English for these candidate and give three hours' time to answer each paper:

PAPER FIRST. (GENERAL.)

N. B.—*Only one question has to be attempted.*

I. Write out a clear, connected narrative from the following correspondence:—

[Here give the correspondence.]

II. Write out a clear, connected statement of facts from the following materials:—

[Here give the matter in question.]

PAPER SECOND. (GENERAL.)

I. Write out in simple English your ideas on any *one* of the following subjects or questions:—

PAPER THIRD. (GENERAL.)

. Translate into your own Vernacular the following:—

II. Translate into English the following passage:—(the passage must be in the Vernacular of the candidate).

For University Candidates for the Entrance Examination, I would have four special papers. The first three *special* papers would be exactly of the same *nature*, (*i.e.* so far as the *form* of the Question is concerned) as the general papers; but the "correspondence," "subjects," "passages" or other "matter" set must be of a more difficult character to understand than for the general papers.

PAPER FOURTH. (SPECIAL.)

TIME FIVE HOURS.

I. Explain:—

[From the text-book.]

N. B.—The answer must be in......sentences. [The paper-setter will put in a particular numerical figure in the blank space. In this way the crammer or the key-maker will be to some extent at least held in check.]

II. Explain :—

[The passage must be unseen.]

III. (*a*) Give the central idea in......sentences (put the figure in the blank space) in the following connected passages :—

[*N. B.*—The passages must be from the text-book and will usually be a paragraph from a chapter, or occasionally two or three paragraphs, if necessary].

(*b*). Show also how the other ideas in the above passages are related to the central idea you suggest.

[*N. B.*—Questions (*a*) and (*b*) are not two separate questions but form one whole question; so that no separate marks will be awarded for either (*a*) or (*b*).]

IV. The same as Question III (*a*) and (*b*), only the passages given must be unseen passages.

V. Support the following propositions or statements by illustrations or arguments or in whatever manner you think fit.

(*a*).——The proposition must be contained in a sentence or two and must be from the text-book.

(*b*).—— ditto.

VI. The same as Question V (*a*) and (*b*), only the passages set must be unseen passages.

VII. Criticise the following statement or statements :—

[The statements must be taken from the text-book.]

VIII. Criticise the following statement or statements :—

[The passages given must be unseen ones.]

IX. Complete, *in your own words*, the ideas in :—

[*N. B.*—Put in the blank space some "incomplete" passages, *i. e.* *portions* of passages taken from the text-book. The passages from the text-book must give some important ideas or sentiment well worth remembering. The examinee will be asked to allow the portion given to stand, while he will be required to finish in his own words the incomplete extract. The examiner, in order to defeat the crammer or the key-maker, must add the following note to the above question :—The answer must be in......sentences (the particular number of sentences in which the examiner wishes the candidate to answer the question being put in the blank space)].

X. Make up the following sentences into any kind of single sentence, taking care to preserve the sense :—

[*N. B.*—The sentences must be unseen ones].

XI. Split up into a number of sentences the following sentence, taking care to preserve the sense :—

[*N. B.*—The sentence must be an unseen sentence].

XII. Write out the following in the form of a dialogue :—

[*N. B.*—The passages must be unseen ones].

***

SYSTEM OF MARKING ANSWERS.

In awarding marks, the following rules may very well be adopted :—

1. A full answer to a question on an unseen passage or passages would carry twice the number of marks allotted to a question on a passage from the text-book.

2. Negative marks have to be given when an answer reveals such gross ignorance that a candidate may very well be suspected of "parrot-work" in making even a correct answer.

3. When a candidate makes mistakes in spelling, in answering a particular paper, and the total number of such mistakes exceeds a prescribed limit, the candidate must be held by reason of that fact to have failed in that paper, and he will be credited with no marks in that paper.

4. In awarding marks, correct punctuation should be specially considered.

5. Where the full number of marks for a particular paper is 100, three-fourths of the total marks—*i.e.*, 75 shall be distributed among the different questions; while one-fourth of the whole shall be kept back to be awarded according to the impression obtained when a paper is read, not question by question, but as a whole.

N.B.—The above rules have been framed with special reference to a paper in ***English***, but they may be extended to other subjects, as far as they are capable of being applied; while Rules 2 and 5 *must* be made compulsory in all cases.

NO SEPERATE GRAMMAR PAPER IN ENGLISH IN MY SCHEME.

It will be seen that I have altogether dispensed with a separate Grammar paper in English: *Firstly*, I am opposed to too many examination papers; and *secondly*, the English Grammar paper even at its best lends itself readily to some sort of memory manipulation at the hands of both coaches and candidates. And *thirdly*, under my scheme a Grammar paper would be unnecessary, inasmuch as, to obtain high marks in my English papers, a student will have *necessarily* to learn all the essential facts of English Grammar; with this most important difference, however, that he will have, in my system, to get up the subject for purposes of writing correct English; whereas under *the present system*, the primary or immediate object of the candidate's learning grammar (from the stand-point alike of the practically minded student and the practically minded teacher) is to enable the candidate to answer certain special kinds of questions—generally of a technical nature—which most of the members of the Universities Commission will probably find it somewhat inconvenient to answer—but which could be "got up" from text-books on Grammar. In the Calcutta University papers of the later seventies and also of the eighties of the last century, the evil of technical questions in English Grammar was most rampant; while in the nineties, (and even now) the evil existed, although in a less pronounced form. If, however, it is deemed desirable to retain the English Grammar paper in the Entrance Examination of the Universities, the following rules must be made obligatory on the Grammar-paper-setter:—

Rule I. Questions must never be asked, asking the candidate to reproduce any rules of grammar or in fact anything connected with grammar which lends itself readily to reproduction from memory.

Rule II. Questions in Grammatical Analysis must never be set.

My reason for the second Rule is that the exclusion of questions in Grammatical analysis would prevent undue attention being given to the *technical* aspects of the subject—the mere *form*—while the teacher is engaged in construing a sentence; for a written answer to a question on Analysis—always involves the use of *technical* terms and expressions which are never correctly understood by the vast majority of young learners, but which are

taken by them to represent the essence of the subject. The wholly artificial character of the knowledge acquired by the student, will be seen when it is remembered that on coming out as a graduate, he has to learn the subject anew if he is at all required to teach the subject to anybody. The chances, however, are that he would be most glad to have done with the subject, once for all.

TWO GENERAL PAPERS IN SANSKRIT FOR SHE ENTRANCE EXAMINATION.

FIRST PAPER—(GENERAL.)

Time—Three hours.

I. Translate the following passages in Sanskrit into your own vernacular :—

II. Write in your own vernacular a short essay on any one of the following subjects—[The subjects must be expressed in Sanskrit.]

SECOND PAPER—(GENERAL.)

Time—Three hours.

Translate the following passages (in English) into Sanskrit :—

[N. B.—The passages must be a simple translation of some simple Sanskrit prose.]

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SPECIAL PAPRERS IN SANSKRIT FOR THE ENTRANCE EXAMINATION.

In the Entrance Examination—there will be only two special papers and not more for University candidates ; and the form of the questions set would be the same as for the General Papers in Sanskrit ; but the passages on which the questions are set must be more difficult to understand than for the General Papers. That would be the only difference on which I would like to insist. I think it is always necessary to set our face steadily against too many examinations in the same subject.

***

F. A. PAPERS IN ENGLISH.

Leaving the subject of examination in the languages for the Entrance Examination, I would take up the same subject for the F. A., and here I would have the *same* number of General Papers and the same number of special papers in English ; and I would have the *same* number and the

same form of the Questions as in the Entrance. But paper for paper, the unseen passages for the F. A. must be more difficult to understand than those for the Entrance. That would be the only difference I would have between the two examinations. As I would prescribe no text-books for a candidate offering to be examined in General Papers in English, at the Entrance Examination; so I would not prescribe any text-book for a candidate similarly circumstanced at the F. A. But I would prescribe text-books for the fourth special paper both in the Entrance and in the F. A. Examination; and so far the "seen" passages must also differ for the different examinations.

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F. A. PAPERS IN SANSKRIT.

As for the F. A. Examination in Sanskrit—I would have two General Papers and three Special Papers. The character of the two General Papers for the F. A. will be the same as that of the special papers for the Entrance; only the passages on which the questions are set must be more difficult in the one case than in the other. As for the first two special papers for the F. A., the character or form of the questions set must be identical with that for the F. A. General; but the unseen passages for the F. A. Special must be more difficult to understand than the unseen passagse for the F. A. General. The third paper Special in F. A. (Sanskrit) would run thus :—

I. Correct the following, giving reasons for your corrections :—

[The reasons may be given either in English or in Sanskrit but if given in Sanskrit will bring higher marks than if given in English].

II. Give in Sanskrit your ideas on any one of the following subjects :—

N. B.—The answer must be given in at least......sentences [Put in the particular numerical figure in the blank space]. Time allowed for each of the F. A. papers must be three hours. It would appear that I have prescribed no text-book either for the F. A. General or F. A. Special; but it is clear that a goodly amount of simple Sanskrit Prose and Poetry must have to be read, and some Grammar also, in order that a candidate may be able to pass in any of the F. A. and the Entrance papers. The Colleges may be given perfect freedom of choice in the selection of their own text-books so long

as the University paper-setter requires of every candidate a good working knowledge of the Sanskrit language. I would prescribe text-books for the B. A. Degree Examination in Sanskrit, but not earlier for reasons which would appear when I come to discuss the subject of Question Papers for that examination.

XIV.

"PREVIOUS COURSE OF INSTRUCTION" FOR HONOUR CANDIDATES: UNIVERSITY EXAMINATION IN HISTORY.

I have in my last article framed certain types of questions for purposes of examination, in the English and in the Sanskrit Language, of Entrance and F. A. candidates. As I am not going to make this series of articles exhaustive but only suggestive and explanatory, I will not pursue the subject of examination-papers further than by showing how we can tackle the question of examination in what has been called "information-subjects" (like *history*) as contra-distinguished from "faculty-subjects" (like the Languages).

Certain studies endow the pupil with the *faculty* of *doing* something he could not do before, such as that of translating foreign languages, or of solving mathematical problems. Subjects which thus lead to the development of a special "faculty" may be called "faculty-subjects." An examiner can easily discover if the pupil has acquired this 'faculty.' But there are certain studies like *history*, which come under the category of "information-subjects." The "information-subjects" it is really very difficult to treat with a view to detect "shallowness" in the examinee; for they could easily be crammed and as easily forgotten. For B. A. Honours in History and also for the Pass examination in the subject, I would therefore have a searching *viva-voce* test, so that the candidate may be put to a searching cross-examination on the answers he has put in. In my scheme, a system of progressive elimination of inferior candidates has been sought to be introduced, with the result that the number of those going in for the Honour Course in any subject or even for the Pass Course would not be too large, and the difficulty of instituting a system of *viva-voce* examinations *specially* in the "infor-

mation-subjects" like history and literature (and even in subjects like psychology, and the moral and mental sciences),—should not be very great. Again, in Pass History I will have three papers, each paper giving only *one* question, or requiring only *one* to be answered out of some three or four questions. In this case, the standard to be exacted must be sufficiently high, the candidate being given plenty of time to answer the paper. In Honour History, I will have six papers, resembling the Pass History papers in everything except that the Honour Standard must be higher than the Pass. The reason why I would have six papers in Honour History (and, indeed, six papers in every Honour subject in the B. A. degree examination) would appear more fully when I come to discuss the subject of the qualifications of the B. A. candidate. At present my point is that for the higher examinations in History, the *viva-voce* test is absolutely necessary in order that the interests of University education may be duly safe-guarded. But this *viva-voce* test would not be so easy to adopt in the Entrance and the F. A. examinations, from the difficulty of numbers. In the case, however, of these lower examinations, we can very well introduce the system of "*one*-question" test as above explained and to exact a high quality of answers. This would be the first step I would take to lift historical study out of the groove of routine teaching and routine examinations. The next step would be to frame the right sort of questions for historical examinations. Historical questions fall under various heads, and it is necessary to arrange the heads in their order of difficulty and set the lowest in point of difficulty in the lowest University examination. At present this principle is not observed in the setting of historical question-papers. My idea is that a graduated course of studies in history ought to be able to develop in the student his capacity *to understand and sympathise with the past.* It is not enough for the University graduate in history to be well-posted in all the latest researches in the field of ancient or modern history; it is not enough for him to be able to reproduce broadly the statements of others and even to give them in carefully-reasoned arguments, supported by appropriate quotations and apt foot-notes.

An examination to test how far the candidate has been successful in getting up what has been aptly called the "documentary side of history" is not worth much and may be left wholly or mainly in the hands of the

college teacher, from whom a special qualifying certificate *in respect of the above*, a candidate may be required to produce before he is admitted into a University examination in *history*. The *University* examination, however, must have a different object in view,—different from merely testing the student's power of recollecting what he has prepared. That object would be to inquire if the candidate is being trained into acquiring an insight into a remote age, differing in culture, politics, manners, religion etc., from his own. Has he any impression of a great historical Epoch? Is he able to realise and paint an historic scene? Has he studied eagerly, sympathetically any Age? Has he been able to obtain a firm grasp of the idea that the Greeks and Romans were living men and not cold marble statues? And is he able to look at their politics, institutions and religions as if they were things not of the dead past but of the living present? If he has studied the Middle Ages of Europe, has he been able to understand and even appreciate 11th century popes and emperors, monasticism, feudalism and scholasticism? Or is he able only to quote from memory elaborate citations of chapter and verse for every historical statement? As far as I have been able to judge, the historical questions that are set by the University paper-setter are mainly of a documentary character. But if history be "a prose narrative of past events," it must have (1) a documentary side; (2) an ethical and psychological side in relation to (*a*) epochs and events, (*b*) institutions, and (*c*) individual personages; and lastly (3) an evolutional side—in relation specially to the rise, growth and decay of societies, and of institutions in particular societies.

In my opinion, the first or the documentary side comes properly under the head of "information-subjects" and ought not to be the subject of a University Examination, but may be provided for by being left to be tested, in any manner he chooses, by the college-teacher and by requiring the candidate to produce a qualifying certificate from him in respect of his knowledge of the documentary portions of history. But this provision, as would be seen, would be necessary only for candidates for the B. A. and higher Degree Examinations.

As for the *third*—or the evolutional side of history, the Entrance or even the F. A. candidates are not the fit persons to profit by a study of it, their thoughts and their capacities at the stage in question are too feeble for

the purpose. I would therefore omit all questions bearing on the constitutional history of political states from the Entrance and F. A. papers in History; although I would *tentatively* introduce the subject in the Pass B. A. papers and make it obligatory, in parts, on Honour candidates. Coming to consider the second side of history—that dealing with the Ethical and Psychological side of Epochs, and events, and institutions, and individual personages, we find that this side lends itself least to cramming. This side of history might also be called Descriptive and Biographical side of history and is undoubtedly most fitted to appeal to the mind of the young learner; and it would also naturally require him to always exercise not only his thought powers but his artistic faculties. In this way, by eschewing the "information" or "documentary" side of history and requiring the pupil to develop his insight into character in its bearing on epochs, events, and institutions and persons, the study of history might be made fruitful and University examinations in history in the earlier stages might be made to test the growth of a "faculty,"—the historical faculty in the candidate,—of realizing the features and lineaments of past scenes and events and of great characters and of painting them with the necessary artistic skill. To sum up:—In the B. A. Honour Examination in History,—questions on the "documentary side" might be put in a separate paper, but then, there ought at the same time to be a searching *viva-voce* test on the subject-matter of the paper. In the B. A. Pass Examination no questions on the "documentary side of history" are to be set; but a qualifying certificate from the college teacher testifying to the candidate's *elementary* proficiency in it will have to be produced. In the Entrance and F. A. historical papers both general and special, only questions from the Descriptive and Biographical side of History shall be set. Further, the same questions may be given for both Entrance General or Entrance Special history; but the standard to be exacted in the case of the Entrance Special must be considerably higher than for the Entrance General. So also in the case of the F. A. Special and the F. A. General. And further, for all the historical examinations from the Entrance upwards, I would adopt the "*One*-question" system, requiring the candidate to answer fully and perfectly one question *only* in a paper of not more than three or four questions. And the *viva-voce* test shall be

applied in the case of B. A. Degree Examinations (Pass or Honours) in every subject, History included.

XV.

QUALIFICATIONS OF THE B. A. DEGREE CANDIDATE.

Coming now to discuss the qualifications of the B. A. Degree Candidates—I would lay down the following rules:—

(*a*) A candidate who has passed in special subjects (two as already explained) in the F. A. shall at his option be entitled to take up Honours in one of those two subjects in the B. A.

(*b*) Honours in more than one subject in any particular year shall not be allowed to any candidate.

(*c*) A candidate taking up Honours (in one subject) shall have also to take up two other pass subjects.

(*d*) Candidates not offering Honour subjects shall have to offer *three* general subjects.

(*e*) *Viva-voce* tests shall, at the option of the examiner, have to be submitted to by all Pass B. A. Degree Candidates after the written answers have been marked; and on the subject-matter of the answers put in. The paper-examiner may at his option exempt any candidate from undergoing the *viva-voce* test on the ground that, in his opinion, in the case of the particular candidate the examination is unnecessary. As for Honour Candidates, *every* candidate shall be subjected to a *viva-voce* test by the examiners.

(*f*) In the *viva-voce* test, the examiner shall award no *positive* marks; but may award negative marks, where he is satisfied on oral examination on the answers put in, for a particular paper that the candidate has not the required insight into the subject of examination.

(*g*) The *viva-voce* test shall be held as soon as practicable after the written examination is over and after the written answers have been marked. In case, a candidate should have during the interval *specially* got up *only* the particular questions set in the written papers, and if the examiner should suspect that the candidate is otherwise generally "shallow" in

his particular subject, he will after putting to him *general* questions in his subject have the option of awarding negative marks on *general* grounds of "shallow knowledge."

(*h*) The B. A. Honour Candidate shall have to produce a special qualifying certificate in respect of the Honour subject from the recognised-teacher with whom he may have read, such certificate being in the form given in a previous article. (No. X)

(*i*) A candidate for Honours in a subject shall be examined in *only* that subject by the University. As for the two other (pass) subjects every Honour shall have to offer, [*Rule* (*d*) above] the following system of examination by the College authorities may be adopted and deemed as equivalent to a University Examination :—

(1)The Honour student will have to attend the pass lectures in his pass subjects along with the pass B. A. students; and he will be required to shew a certain percentage of attendance at such lectures in common with all pass students.

(2) There shall be two periodical examinations in the course of every academic session for all students attending *pass lectures in any subject*, such examinations being conducted by a college-teacher teaching that subject. The examination shall be conducted in the following manner :—

The teacher shall announce that on a given date a batch of not more than ten pass students will be required to attend a certain special class to discuss a particular question bearing on the subject of the pass-lectures delivered. The subject will be announced about a fortnight previous to the day of the meeting; but the names of the particular candidates who may have to take part in the discussion shall not be announced beforehand. Then, one of the selected number will be required by the teacher to open a discussion on the subject and every one of the remaining members shall be called upon by turns either to attack or defend the position taken up by the opener and each member shall be called upon to support his own position against the criticisms of others. The discussion may last for any number of hours, or so long as the teacher-examiner thinks fit to continue it with a view to satisfy himself as to how far his pupils have been following his lectures and been profiting by them. This meeting

shall be open to all teachers of colleges, who shall be entitled to watch the proceedings, and the University itself will have the option of sending representatives to watch the proceedings. The results of this examination will have to be announced in due course and the pass students examined will have to be classified as "excellent," "good," "fair" or "indifferent," as the case may be. In this way, batch after batch will have to be taken up and candidates showing an inferior capacity to the "indifferent" class shall not ordinarily be allowed to attend an advanced course of pass lectures, but shall be compelled to attend the same old course of lectures. In this way, after a successive course of some two to four periodical examinations, the Honour candidate offering two pass subjects and after obtaining a qualifying certificate in those subjects from the college-teacher shall be permitted to appear at the University examination in his Honour subject; and shall not be subjected to any *University* Examination in the pass subjects. As for the pass candidate, he shall *not only* have to produce the Qualifying Pass Certificate after undergoing the above-mentioned college examinations; but he shall have also to undergo a further *written University* test on his pass subject; and if still "shallowness" is suspected in him, he shall be further compelled to submit to a *viva-voce* test as provided for by Rules (*f*) and (*g*) above.

(*j*) For Honour candidates, I will have *six* papers, each paper not containing more than six questions and the candidate being invited to answer not more than two questions.

(*k*) For Pass candidates, I will have three papers for each subject—being altogether nine papers for the three different subjects which the pass candidate shall be required to offer.

(*l*) I would make it obligatory on the University to publish the answers of the Honour graduates, so that the University shall always be required to pitch its behaviour high in the interests of a high standard of University education.

(*m*) In the Languages I should like to have prescribed text-books for the B. A. Pass and Honour candidates: but not in any other subjects.

(*n*) The Honour candidates, so far as teaching in the Honour subjects is concerned, shall be wholly in the hands of the University recognised-

teacher; but I would have the University make it compulsory on every University recognised-teacher to deliver an independent course of lectures in his particular subject, (I have specially dwelt on the absolute necessity of this in my earlier articles), and I would make it compulsory on all Honour candidates to attend such lectures, such lectures being also open to all teachers of colleges, and also to all pass students, and to the public under special, published rules. As previously explained, these lectures will have to be printed and published and copies duly forwarded to the University authorities for their information. (*vide* article No. VIII.)

(*o*) I will make it optional with a B. A. candidate to read different subjects in different colleges. Thus, a student reading Honours in Science at the Presidency College may at his own choice read his two other subjects (pass) in two different institutions. Or, a candidate offering pass subjects (three in number as already explained) for the B. A. examination may have, at his choice, read the three subjects in three different institutions. In this way there shall be set up a healthy rivalry between different colleges, each trying to offer the best teaching in the particular subjects which it would agree to teach. This would necessitate the introduction of a system of fees for a course of lectures in a particular subject and would promote thoroughness and prevent waste, through the wider application of the principle of division of labour. The rules of affiliation of colleges may be altered to bring in a provision under this head.

(*p*) A candidate who has obtained Honours in a particular year will be at liberty to offer himself for examination in Honours in a *second* subject in *another* year, provided he has complied with the usual regulations for examination in an Honour subject.

(*q*) A candidate offering to be examined in a *second* Honour subject need not show that, that subject was also his "special" subject in the F. A. examination, which, but for this provision would be necessary (as previously explained).

(*r*) Successful Honour candidates shall be grouped under two classes:—The First Division and the Second Division.

(*s*) Only a first class Honour man shall be allowed to offer himself for examination for the M. A. Degree in the particular subject in which he has obtained a First Class.

(*t*) A second-class Honour man keeping term for another year and undergoing the necessary training at the hands of a recognised-teacher may apply for permission to appear for the second time in an Honour Examination with a view to obtain a *first class* in his old subject, provided always that he is able to produce a *special recommendation* from his recognised-teacher. A candidate producing such special recommendation shall be examined in the Honours subject for a second time; and the qualifying certificate in respect of his old pass subjects previously obtained by him, shall remain in force so as to validate a second examination in Honours.

(*u*) I would classify *alphabetically* in two classes, all successful pass-candidates by the aggregate of the marks obtained by each candidate.

(*v*) There are in regard to the subject of *history* some special provisions given in Article XIV. to which I beg to refer, as falling also under this chapter.

XVI.

SUPPLEMENTAL RULES FOR THE ENTRANCE AND F. A. EXAMINATIONS.

(1). In the Entrance and the F. A. Examinations, it is always necessary to provide that the number of examinations shall not be too many, and the number of subjects also not too many. With this view, I would adopt the following plan :—

(*a*). Let there be a fixed number of subjects which every candidate for the Entrance or the F. A. shall have to take up. So far, all these subjects are to be compulsory subjects. But there need not be written *examinations by the University* for *every* compulsory subject. Let a candidate be given the option of offering particular subjects—say three in number (two special and one general, or three general, in accordance with my scheme already explained) for the *University* Examination. The rest of the compulsory subjects may be left to be tested by the affiliated school or college in any manner it chooses. Thus, a candidate going up for the Entrance or F. A. Examination may be required to produce a special qualifying certificate to the effect that "he has attended a certain course of lectures in the *non-examination* subjects and that in the opinion of the head of the school or College,

he has acquired an *elementary* knowledge of the non-examination subjects and that he is also otherwise competent in respect of the University *Examination*-subjects."

(2): As in the Pass B.A., I would also classify in two classes all successful *non-university* candidates for the Entrance and the F. A. Examinations. [For the definition of '*non-university* candidate,' see article No. XIII.]

(3). I would add in a footnote the following *Explanation* in connection with the expression "moral character," as given in the certificate from the head of an affiliated school or College required to be forwarded under the present system with the candidate's application for admission to the Entrance or the F. A. Examination of the Calcutta University.

"I certify that I know nothing against the moral character of the above-named candidate etc., etc." (*Vide Calcutta University Calendar for 1901*).

Explanation.—' A student who in the opinion of the head of an affiliated school or college does not ordinarily make proper attempts to understand subject which he is required to learn shall be deemed, to be guilty of conduct which would prevent him from obtaining the above certificate.'

XVII.

CONCLUDING REMARKS.

As for the special functions which the University in its corporate capacity may be called upon to perform, none is higher than the organisation of well-equipped University Laboratories for the promotion of the various branches of scientific learning. These University Laboratories may be freely availed of by all colleges without distinction; while the nucleus for such laboratories may be found in the Government Presidency College and Medical College laboratories and in the laboratory of the Indian Association for the Cultivation of Science, Calcutta. To expect private colleges to maintain *well-equipped* laboratories of their own would be to expect too much, especially when we remember that at Cambridge, no more than two or three Colleges possess laboratories of their own; while the vast majority have to fall back upon the University Laboratories located in the Central Museum.

EDITOR

RANA KUMBHA: A STUDY FROM ORIGINAL SOURCES.—II.

[*Continued from page 281, Vol. V.*]

After his wars with Malwa, Rānā Kumbha came to be looked up to as one of the most powerful potentates in Central India. On the dissolution of the Empire of the Tughluqs of Delhi in the beginning of the fifteenth century, Nagor fell to the share of a kinsman of Muzaffar Shah, the founder of the independent Muhammadan Kingdom of Gujarat. Firoz Khan, the second ruler of Nagor, the "Peroja" of the Chitorgarh inscription of Mokala,* died about this time. His brother, Mujāhed Khan, ousted Shamsh Khan, his son and heir, from the *gadi* of Nagor. Shamsh Khan sought the protection and assistance of the Rānā. Rānā Kumbha readily promised to recover Nagor from the usurper and restore it to Shamsh Khan upon one condition. Kumbha's father, Rānā Mokala, had led more than one plundering expedition to Nagor. About A. D. 1411, Rānā Mokala inflicted a defeat upon Firoz Khan, who fought with desparate courage.† Perhaps this victory is referred to in the following couplet of Makala's Chitorgarh inscription of A. D. 1428 :—

"नेता पानोत्तराणां यवननरपतिं लुंठिताशेषसैन्यं
पेरोजं कीर्त्तिवल्लीकुसुमसमतिर्योऽकरोत्संगरस्थः।"

Mokala led another expidition against Nagor, probably some time after 1428, and was repulsed with a loss of three thousand men. The unhappy memory of this disaster always rankled in the mind of the proud and valiant son of Mokala. Kumbha now seized the occasion of the overtures made by the refugee from Nagor to impose terms, the observance of which he thought in his quaint Rajput fashion, would remove that stain on the escutcheon of his house. He extorted a promise from Shamsh Khan that on his restoration he would pull down three turrets of the fortress of Nagor, so that people might say that "although Rānā Mokala had fled, but his son laid hands on the fort."

In pursuance of his agreement with Shamsh Khan, Rānā Kumbha led an army to Nagor. Mujahed Khan, the usurper, fled at his approach, and

* Prof. Kielhorn wrongly identifies "पेरोज" with Sultan Firoz Shah Tughluq of Delhi (A. D. 1351—1388).

† *Tabakat-i-Akbari*, p. 451.

sought refuge with Kumbha's old enemy, the Sultan of Malwa. Shamsh Khan was placed on the vacant *gadi* by his Rajput patron, who now demanded the fulfilment of his part of the agreement. The new ruler of Nagor, feeling himself secure in the allegiance of his subjects, laid the question before his nobles. Cries of "shame," "shame," rose from the multitude, and Shamsh Khan replied to the envoy of the Rānā,—'Until my head his severed, the destruction of the turrets is impossible.'" Kumbha at once left for Mewar and returned with a larger force to punish his late protege. Shamsh Khan came out of Nagor to oppose him, but was defeated, and entrusting the defence of the fortress into the hands of his officers, himself hastened to Ahmedabad to beg assistance from the king of Gujarat. Kumbha invested Nagor.

Shamsh Khan met with kind reception at the court of Sultan Kutbuddin, who married his daughter, ill-fated girl! When her husband died of protracted illness four years later, she was suspected of administering poison, and was cut to pieces by the slaves of her mother-in-law. After the celebration of the nuptial, Kutbuddin despatched a body of troops under one Rai Paramchand Tāk and certain other Muhammadan officers to relieve the garrison of Nagor. Our author is silent about the fate of this force. It probably never reached its destination; and information now reached Ahmedabad that the furious assaults of the besieger were making havoc among the defenders, and the Rajput raiders were spreading desolation into the adjacent territories. The fall of Nagor was only a matter of time.

These reports roused Kutbuddin to a true sense of the danger ahead. He now resolved to invade Mewar in person at the head of his entire force. Kutbuddin set out on his expedition in A. D. 1456. His route northward lay by the Aravalli hills. When he had advanced, as far as the fort of Abu, Kitāopodā, probably a Bhil chief, who had been dispossessed of that stronghold by Rānā Kumbha, sought his protection. Kutubuddin detached a division under a general bearing the title of Imādu-i-Mulk, to help Kitāopodā to recapture Abu, and himself pressed forward. The Rajput garrison of Abu stood firm and repulsed Imādu-i-Mulk with heavy loss. Kutbuddin was not inclined to further weaken his army by sending reinforcements. He therefore postponed the capture of Abu for the present and recalled Imādu-i-Mulk.

When the invader approached Sirohi, the Raja of Sirohi, who was an ally of the Rānā, came forward to oppose him, but was defeated. Mewar now lay open to Kutbuddin. Rānā Kumbha had already returned to his kingdom, probably making arrangements for the conduct of the siege of Nagor in his absence, and was waiting at Kumbalmir to confront the invaders from Gujarat, making that stronghold his base. Kutubuddin advanced, like Mahmud Khilji of Malwa in A. D. 1443, carrying fire and sword. When he came within striking distance, Kumbha sallied out of Kumbalmir, and charged the Gujaratis. Day after day columns of the Rajputs charged the invaders, but had to retire, as our Muhammadan authorities tell us, after losing a great number of men. "In the end Kumbha offered suitable *peshkash* submissively and with humility, and the Sultan, returning, went to Ahmedabad." Not a word about Nagor, which place was not abandoned by the Rānā until later. And Nizamuddin's account of the abrupt termination of the campaign signifies nothing more than this,—that the invader had got tired of it and seized the first opportunity offered him of retreat with honour.

The true significance of Kutubuddin's accepting *peshkash* was rightly understood in one quarter. Mujahed Khan of Nagor was a refugee at the Court of Mandu, and Sultan Mahmud Khilji was not, therefore, a mere unconcerned spectator of the game that was being played between the Rana of Mewar and the Sultan of Gujarat. Although for ten years he had refrained from invading Mewar, he had never for a moment given up the thought of Mewar. His fruitless efforts to aggrandize his kingdom at the expense of Gujarat, and the inadequacy of his resources to reduce the strongholds of the Rānā, had hitherto prevented him from undertaking any fresh expedition. But Mahmud saw his opportunity when Kutubuddin retreated from the neighbourhood of Kumbalmir. He at once formed the design of inviting Sultan Kutubuddin to a coalition to crush the power of the Rajput. An envoy was accordingly sent to the Court of Gujarat to negotiate the terms of an agreement, towards the end of the year that saw Kutubuddin withdraw his invading troops from Mewar. And an agreement was ultimately signed which virtually proposed the partition of the Rana's Kingdom. According to its articles, the Sultan of Gujarat

was to overrun the territories of Mewar lying near Gujarat, the Sultan of Malwa was to occupy Ajmere and Northern Mewar, and the contracting parties were to come to one another's assistance in the event of danger.

[*To be continued.*]

RAMAPRASAD CHANDRA.

THE LATE RELIGIOUS CONFERENCE AT MATHURA.

One of the most interesting events in the religious world of India that have occurred in the course of the last few months has been the Religious Conference lately held at Mathura under the able and distinguished presidency of Pandit Giridhari Lala Jha of Aligarh. We invite the special attention of readers of the journal to the following three opening discourses of the illustrious Pandit, delivered on three different dates, as they contain not only most interesting and learned matter but as they also reveal a deep catholicity of thought and feeling in regard to the various questions brought up for discussion and elucidation in the miniature Parliament of Religions at Mathura. The more the representatives of differing and different religions come in friendly contact with each other and learn to exchange views and even compare notes, much of the rivalry, bitterness, and antagonism between different sects which is foreign to the true religious spirit and which has made conventional religion a by-word among nations would, we are convinced, disappear. The spirit of exclusiveness or antagonism is in man, not in any true religion,—by which we mean the true religious spirit. India for a long, long time has forgotten her God, and has been worshipping only *self* in His place. For God has revealed Himself in divers places in divers forms, and in different minds in different ways; so that it is a rebellion against God to hate a brother for religious convictions honestly held and honestly carried out. When man forgets God and exalts self, he hates or wages war against his brother, and digs the grave

of his own spiritual nature in the vaunted name of his religion. It is this spirit of constant rebellion that has manifested itself in the world's great religious wars and has made the title of a *religious man* signify all that is narrow, crude, exclusive, uncharitable, selfish, unbrotherly in man, instead of all that is high, holy, peaceable, life-giving, sympathetic in his nature. It is this spirit of self-exaltation, self-glorification and self-deception in the boasted name of God's Religion that has made the ordinary religionist the least in God's creation, usurping like a tyrant the place of the most high. The degradation of India is coincident with the growth of this spirit in her children, the spirit of war of sect with sect, of religion with religion. The love of God in India amongst the vast majority of professed votaries has been thought to be another word for the hate of man, the hate of one class of believers for another class, and *vice-versa*. And if it is true that God reigns on earth, it must follow that the Indian races shall never prosper unless they have learnt to love God in that true and most practical way—by loving man, God's creatures, of whatever religions, race or sect, or colour.

Therefore, it is with sincere pleasure that we note that the Religious Conference at Mathura so successfully held and that it was presided over by a man who is not only vastly learned but who is imbued with the true religious spirit, as we have sought to explain ourselves. For the success of a meeting, specially a religious one, where the parties belong to different camps, depends, we are tempted to say, almost wholly on the character and ability of the President and his choice of lieutenants in the shape of the different speakers to represent the different religions. With these prefatory remarks we beg to present to the reader the President's opening discourses on three different dates.

EDITOR

THE DISCOURSES OF THE PRESIDENT AT THE MATHURA RELIGIOUS CONFERENCE.

I.—(SECOND DAY).

GENTLEMEN,

What you heard yesterday, and what you will hear to-day, and on the following three days, you must not regard merely with curiosity, but you should try to derive intelligent lessons from what you hear. To enable you to have a systematic idea of the speeches on different religions that you are going to hear, I classify them, so that you may be able to view them in their proper places. There are six principal religions, besides many others of less importance. In order of time, they are the Indian religions, Parsism, Buddhism (and Jainism), Judaism, Christianity, and Islam. While the Indian religion may be divided into five forms—(*a*) Vaidik (vedic), (*b*) Darshanik (philosophical), (*c*) Pauranik, (*d*) Samajik (associational), and (*e*) the PANTHS (paths).

(*a*) The Vedic religion may be divided into three parts—Samhitas which contain prayers addressed to God in the form of the sun, the air, the fire, and other natural phenomena. The second part, the Brahmanas, contains rituals. The third part contains the Upanishads —the foundation of the Indian philosophy, and directly or indirectly, of the philosophies of China, Greece, Alexandria, Rome and Germany.

(*b*) The second form contains not only six, but fifteen schools of Indian philosophy. In fact, Indian philosophy is so vast that we can literally say that it is an abridgment of the entire History of Philosophy.

(*c*). The third Indian religion is the Pauranik, which contains five forms of the Deity, Vishnu, Shiva, Sakti, Ganêsh, and Sûrya. Their worshippers are respectively called the Vaishnavas, the Shaivas, the Shâktas, the Gânapatyas and the Sauryas. Râma, Krishna, and others are the incarnations or the Avatârs of Vishnû. The worshippers of these Avatârs of Vishnû are called the Vaishnavas. Their chief sampradayas are those of Râmânuj (with Ramânand), Nimbârk, Madhva (with Chaitanya) and Vishnû Swâmi (or Vallabh). They all belong to the Mohamedan period.

(*d*) The fourth division of the Indian religion is Sámájik or associational, belonging to the English period—the Brahma-Samâj, Prârthanâ Samâj, Arya Samâj and Theosophical (society or) Samäj, besides other forms of less importance. The principles of the first two are nearly the same. They belong to natural theology founded

upon faith, while the principles of the Arya Samaj belong to a revealed theology founded upon understanding. The fourth is Theosophy tending towards Buddhism in Madame Blavatsky's time, while at present in Mrs. Annie Besant's time it appears to have adopted a modified form of the Vedant.

(*e*) The fifth division contains Panths such as Kabîr Panthî, Dadu Panthî, Nânak Panthi, Gôrakh Panthi, Sadnâ Panthî, Sênâ Panthî, Charan Dâsî, Radha Swamî, Vishnû Swamî. Malûk Dâsi, Harish Chandrî, Sakhi-bhâvi, Mîrân Panthî, Khâqî, and others all belonging to the Mohamedan and the English periods and being moderate in tone.

2. Next in order of time comes Parsism. According to it, there are two substantial beings, Ahur Mazda (Asur Môdhâ) and Ahriman—Good and Evil. Man is a choosing being. Good men become divine.

3. The third in order of time is Buddhism, in which the law of Karma is predominant, Mâdhyamik, Yôgâchâr, Sautrântik, Vaibhâshik are the four philosophical schools following it.

Nearly connected with this, but quite different in its doctrine is Jainism. There are two objects according to it—Jîva and Ajîva, or the Individual mind and nature. Other objects mentioned in the Jain works fall under these two.

4—6. The other three religions are Judaism, Christianity and Islam. They are all theological in their nature. The first and the last believe in one God, while Christianity believes in Trinity. All the three are founded upon faith.

These are the principal historical religions. Logically they may be divided into three forms—popular, scientific, and philosophical. The so-called revealed religions are mostly adapted to the popular mind—not altogether wanting in the two higher forms. As the advocates of different religions are to speak now, I, as the moderator, open the meeting with this introduction, and leave the consideration of the scientific and the philosopical stages for another opportunity (for the fifth day).

II.—(THIRD DAY).

LADIES AND GENTLEMEN,

To-day you will hear the representatives of the most practical of all the religions, Christianity, Islam, and Sikhism.

1. We must thank the Christian missionaries for their kindly taking into their protection the poor and the famine-stricken people, for giving them food to eat and clothes to cover themselves They did for them what their countrymen failed to have done. Not only this. To these ignorant persons they gave religious instruction also. For all this, we thank the representative missionaries, who are sitting here before us. We shall thank you much more, if you enlighten this religious gathering of intelligent persons also. We will hear very patiently whatever you are pleased to say. But you cannot satisfy us with the description of the historical Christ. This we must say at once to prevent misconception. The philosophical Christ only, and not the historical, will give us intellectual satisfaction. He always is, *not was*, the Divine Reason. We ought to be transformed into *this Christ*—not the historical one. For 'to eat his flesh and to drink his blood' means with us, to become altogether changed into his person, without reserve or limitation—to think wholly and entirely like him—to live wholly and entirely like him—and so, as if he himself lived in our life—, I live, yet not I, but Christ liveth in me.' Christ or the Divine Reason, cannot be separated from the other two elements of the Trinity—God, and his Existence which is the nature. God, the Divine Being, Christ, the Divine Reason; and Holy Spirit the Divine Existence, are one God. The doctrine of Trinity is, in essence, the doctrine of unity —the Unity in difference.

2. Next Mohammad is the same Divine Reason as we ascribed to Christ. The hidden nature of God is revealed by the Divine Reason. What says the Quran? 'I was as a gem concealed,' 'Me my burning ray revealed.' The name of the speaker is Mohammad Anand, our Nainital friend. The name means the Divine Reason joined with the Divine Love.

3. Lastly, the most practical of all the practical religions is Sikhism—practical used here, of course, in reference to the idea of military activity. Anywhere, in the peaceful British raj, whether in the quiet haunts of the Himalaya, or in the midst of our protected cities, it is very easy to enjoy religious felicity. But it is very, very difficult to have the satisfaction of a similar nature in the midst of war To enable his disciples to preserve a lofty peace of mind even amidst the din and noise of the battle-field was the aim of Guru Govind's teachings. To infuse the spirit of immortal glory into the heroic of his minds disciples, with ambrosial satiety was 'Amrit Chhakana' which is the drinking of immortality.

With this introduction, I respectfully ask the representatives of these religions to deliver their addresses. We will hear them very patiently and respectfully.

III.—(FIFTH DAY).

GENTLEMEN,

I am not going to criticise, but to make a review of all the forms of religion represented, by bringing them into system. Shall I commence my review of the religions in the order in which they are represented here everyday, or in the order of time, in which I mentioned the six historical religions on the second day? I think the order of time will be preferable. In order of time, there are, as already mentioned to you, six religions. The Indian Vedic religion, Parsism, Buddhism (and Jainism), Judaism, Christianity, and Islam.

If any sacred book can be called revealed, it is the Veda, inasmuch as God's book must be revealed with the creation of the world, and not afterwards from time to time when the Divine Experience increased—this will betray the want of the Divine foresight. No, but I call even the Veda the historical religion, because we find therein the mention of the old and new Rishis and their beliefs (Panthah).

Sampradàys and Samajes owing allegiance to the Indian religion, Jainism, Christianity, and Islam, were all represented by their respective advocates, in this grand assembly, as also Free-thinking and the Vedant. Shall we take up these forms first or the test by which they are adjusted? I think it is well to take up the latter first, for it is first in point of importance. The test I speak of is the test of Mind. There are three stages of the mind, adapted to the three stages of religion—popular, scientific, and philosophical, each having the three faculties of knowing, feeling, and willing. These faculties do not exist side by side, as separate powers. The spritual unity cannot be conceived of as a repository, like a case of instruments or like a box of sorting letters, in which three things are placed side by side, but rather as a unity of which the various elements necessarily involve each other, or are the correlative expressions of a common principle. This central principle is Thought. Now the question is, what is the special form of thought to which religion belongs? In point of time, the mind appears as feeling, perception, or mental images of objects, long before it appears as thoughts and notions of them. Through these mental images, the thinking mind rises to thoughts by the formal logic of understanding, and ultimately to

notions by the speculative logic of reason, *i.e.*, from the popular to the scientific, and from the scientific to the philosophical stages of thought. The lower stages are absorbed by the higher into themselves, just as childhood is absorbed into boyhood, and boyhood into youth. This does not mean that the truth can be attained by scientific thought, or by philosophical notion only. Such a doctrine would be analogous to supposing that eating was impossible before we had acquired a scientific knowledge of the Chemical, Botanical, and Zoological characters of our food and that we must delay digestion till we have finished the study of Anatomy and Physiology. The fact is that each form—image, thought or notion—allies itself with the content and appears in consequence to give rise to a special object. Thus what is the same at bottom, may look like a different sort of object. Only the higher form is more adequate to the spiritual object.

Now let us take one by one the forms of religion respresented at this Dharma Mahotsava.

1. Râmânuj Sampradâya was ably represented in Sanskrit by P. Lakshman Acharya of Vrindâvana. His description of the Lord, Individual Souls, and matter was quite in accordance with theology or the science of religion, resembling the doctrine of Descartes. The Nimbârk, Madhva (Chaitanya) Samprâdayas and the lives of their founders were clearly described by P. Râdhâ Charan Gôswâmi, and the doctrine of faith and love ably established. An account of the Vallabha Sampradâya was read from a manuscript sent by P. Râma Prapanna of Alwar Raj. The theological doctrine and the lives of the Reformers of Brahma Samaj were briefly referred to by the same Gôswamî whose name has been given above. The eclectic Sâdhâran Dharma preached by Swâmi Shivagana Achârya, the founder of the Dharma Mahôtsava, was briefly described by Swâmi Krishnânand, Manager, Shântî Ashram, and by Babu Sânwal-Sahây, Secretary, Educational Committee, Aligarh.

2. Jainism was, in a scholarly manner represented by Babu Bânârsi Dâs, M. A., of Gwalior. He proved clearly that Jainism is not a recent religion. In this we quite agree with him, since we find its doctrine fully criticised by Sankar Achârya in his commentary on the Vedant Sutras, Kh. II, Pâda 2, Sûtras from 33 to 36. Thus Jainism took its rise at least some years before the rise of Sankar Achârya. The learned advocate of Jainism fully described its main doctrine, but the more abstruse theories were touched on only slightly. He did wisely in doing so, as there were few persons in the assembly who could take interest in the subject. To all things the Jains apply the

following method of reasoning which they call the Saptabhanginâya: somehow it is; somehow it is not; somehow it is and it is not: somehow it is indescribable; somehow it is and is indescribable somehow it is not and is indescribable; somehow it is and is not and is indescribable.

3. Christianity was represented by Rev. Mr. Scott and Professor Jwala Sinha—a native Christian. The speech of the former was simple: while that of the latter was theological, seeking to establish by means of logic the arbitrary—and unconnected dogmas of Christianity.

4. Mohammad Anand, the representative of Islam, contrasted the grades of mind and nature, and passing through the fourfold stages of life and of knowledge, took rest in mysticism, acknowledging the supremacy of the Indian Philosophy, there being, properly speaking, no Mohamedan *philosophy*.

5. P. Govar Dhan Das ably represented Free-thinking, which is the exercise of critical speculative thought, in disregard of authority, of common consent of mankind, and of alleged first principles of faith and conduct. He mixed wonderfully with Free-thinking the doctrines of the French philosopher, Auguste Comte, named Positivism, which is the worship of Humanity. The last is a social doctrine. Its aim is social. Its God is humanity.

6. In his closing speeches, Swami Ram Tirth, M. A., established the superiority of the Vedant. From the intuitional point of view, they were highly interesting and stimulating.

In making a review of the popular religions and in proceeding towards the scientific stage, I leave out of review the question of Practical Education, on which Babu Ganëshï Lal, B.A., spoke so well. In his learned speech, he enumerated the different branches of knowledge or science. Now I would try to bring these sciences into system. While on the one hand, I wish to classify them, on the other, I have to raise the minds of my audience from the popular to the scientific stage. To answer both of these purposes, not only must I classify the sciences, but also point out the position of the science of Religion, in ther ealm of the Sciences. Sciences may be divided into the Finite and the Infinite. The finite sciences are either natural or mental. The natural sciences are of course Mathematics, Mechanics, Astronomy, Physics, Chemistry, and Biology. The mental sciences are, roughly speaking, intellectual, moral, and social. The infinite sciences are Art (used here in the widest sense of the term), Religion,

and Philosophy. Thus, each science holds its proper place, and the science of religion stands uppermost, next only to Philosophy.

1. The so-called revealed or the historical religions are mostly popular religions. The popular, as distinguished from the scientific or the speculative religion consists in worshipping images, symbols, or pictorial representations of ideas under a sensuous form; personal gods; or material objects in space and events in time. The wings by which the popular thought seeks to soar above matter are themselves material, and they tend to become a burden and to drag it back into the world to which they belong. Thought at this stage is unconsciously trying to work itself clear of the sense image, to drop from its content that which is not universal, but its effort is never wholly successful.

2. While in the scientific stage, when reflection is awakened, and understanding begins to seek its own satisfaction, that satisfaction is one which neither pious feeling nor the representations of the ordinary and unscientific consciousness can supply. The first step that we take in this stage to meet the craving for intellectual satisfaction is to construct theological dogmas and weaving them into system. But we speedily find that spritual unity lies beyond the scope of theology and its arbitrary associations. *Then*, we try by the necessary laws of thought to form scientific systems on the basis of formal logic. The principles, forms, and methods of this logic only serves to exaggerate the oppositions and finite distinctions, instead of bringing spiritual unity to satisfy our reason. It produces the opposite and finite systems like Materialism and Idealism, Sensationalism and Rationalism, Agnosticism and Scepticism and such like. Nature, Mind, and God are, in short, left unreconciled by the scientific thought.

3. In the philosophical stage, on the contrary, the speculative thought or mind reconciles itself, on the one hand, with nature, which is now no more a nature in the natural sense of the term, but is transformed into the Absolute Spiritual Existence of God; and on the other, with God, who is the absolute Being of that Absolute Existence. The absolute notion reconciles the absolute Being of God with his absolute Existence. 'The true nature of Being becomes manifest, when it has been perceived by the Notion of Existence' as is shown in Kath. Upanishad 6, Valli 13.

This spiritual Unity the speculative mind can grasp either with the notion of reason (gyân, ज्ञान), or see intuitionally (Anubhava, अनुभव), or feel with ectasy (Paramanand, परमानन्द), or with absolute love (परमप्रेम), or only mystically (योग) in concrete Unity of the occidental philosophy, or in abstract Unity of the Oriental philosophy,—Vedant.

I would have dwelt upon this highest stage thoroughly, had I time to deliver a lecture separately on the Vedant. The theory of illusion or Maya, the identity of Jiva and Brahm, subjectivity or Nivritti and objectivity or Pravrati, the connexion of the Vedant with Society in all its relations, in other words, the practical Vedant, the theory of Fate, the comparison of the eastern and western philosophy, are the questions of the day for the Vedant to answer.

THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—*SANKARA.*

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THE PHILOSOPHY OF THE GODS.—III.

[*Continued from page 262, Vol. V.*]

In the present article, I propose to deal with the question as to whence the gods (devas) are recruited. We are told that the highest system of evolution connected with the earth, is that of beings whom we call the devas. "They may, in fact, be regarded as a kingdom lying next above humanity, in the same way as humanity in turn lies next above the animal kingdom;"* but at the same time it is a fact, that some of their very numerous classes have not evolved through the human stage at all. There is thus a separate deva evolution which is distinct from the evolution of humanity. Thus, the Upanishad speaks of the *Ajana* Deva (the natural-born Deva, so to say) as distinguished from the *Sadhya* Deva, the product of evolution from humanity. And the scriptures have placed on record numerous instances of men having evolved into devas. For instance, the Bhagabata Purana relates how Narada, the great *Rishi* initiate (Devarshi), evolved from a rustic lad—the son of a slave girl. We also read of king Nahusha having become the king of the celestials, Indra himself. We are also told that Bali is to become Indra in the next cycle. Further, the "*Chandi*" is only the life-history of an ancient king Suratha, who by appropriate means evolved into a Manu—Savarni Manu of the next Manwantara; and in the Brihadaranyaka Upanishad we have the explicit statement that a human being by devoting himself to a particular god, evolves unto his likeness,† and the Gita likewise teaches us that one devoted to the devas, goes to the devas. To the same effect, is the teaching in the Samkhya Sutras, which, while denying the existence

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* C. W. Leadbeater's Astral Plane, page 64.

† "Tena u etasyai devatayai sayujyam salokatam jayati"——Brihadaranyaka 1-5-23.

of a supreme Logos, speak of the Vedic hymns as being addressed to liberated human beings (Muktasya Upasa). The Vedânta Sutras are more explicit and discuss the functions of the *Adhikarikas*——the elects of God, the emancipated men, who, having by their special work deserved the privilege of serving the Supreme in the government of the worlds, are appointed by the Supreme Being to discharge certain cosmic functions. (Brahma-Sutras, 3-3-32). In commenting on this Sutra, Shankaracharya speaks of the Sun-god discharging his appointed function, and of *Sanat Kumara* as being appointed to become the *Skanda* in the coming *Kalpa*. Also, the Vishnu Purana (Book II.) gives a catalogue of various personages, who have been or are to be the Manu, the Indra, or the Saptarshi, as the case may be, of each of the fourteen Manwantaras that go to make up the current Kalpa. It ought to be borne in mind that these functionaries are appointed to do their appropriate duties only for a fixed period of time, so that after the expiry of that period, they either lapse into manhood, or what is oftener the case, pass on to a higher state of evolutionary growth. Thus, it is said that Surya, the Sun-god, after doing duty as such, for a period of one thousand deva years, will attain liberation. For, be it remembered that the deva kingdom itself is within the scope of the evolutionary sweep; for, as the Vedanta Sutras teach us, the *Brahmavidya* is also for the devas, and instances are not wanting of some of the gods having been initiated into the mysteries of the supreme wisdom by the great Initiates. For instance, the Chhandyogya Upanishad relates how Indra, the lord of the celestials, put himself under tuition to a great Rishi, who taught him the Brahma-Vidya.

We must not, however, lose sight of the fact, that the system of evolution obtaining among the devas is somewhat different from what governs mankind; although it is possible, as we have seen, for human beings by developing special aptitudes to become gods and to discharge their appointed functions in the governance of the universe. The fact is, that when a man reaches a certain stage of evolution, there open out to him two distinct paths whereby to reach his goal. He may tread the path of *krama mukti* or gradual evolution and evolve into a god, donning what the Buddhists call the Dharma *Kaya* vesture. Thence he may gradually scale the highest steeps and become in the process of time, a Prajapati or a planetary logos, presiding over the evolution of a particular solar system,* and so on

* *Vide* on this point Brihadaranyaka 1-8-1 and Shankara's commentary thereon, which expressly speaks of a human aspirant evolving into Prajapati.

and on, until he enters into the One Existence from which all proceed. Once a man has chosen to tread this path, he loses close touch with humanity, except so far as the function which he has to perform in the cosmic economy, may bring him into such contact. The other path is the path of direct liberation or *videha mukti*, which involves the sublime renunciation of what the Buddhists call the Nirmana *Kaya*. Thus, we see how the gods are recruited to a certain extent from among the flower of humanity——from the ranks of men forming the crest wave of evolution.

Next, we have to consider the extent of the power possessed by these devas. Though they are the conscious instruments of the Supreme employed in evolving and maintaining a particular order of things; though they are the superintending and presiding intelligences governing the workings of Nature in its various aspects, yet they cannot transcend the divinely ordained scheme, but have always to carry out the archetypal design chalked out by the Divine mind, accepting and working under the primeval plan, projected by the Supreme Logos. And, what Shankaracharya says in his commentary on the Vedanta Sutra 4-4-17 (*Jagat Vyapara barjjam*), with reference to the emancipated soul, may, with equal appropriateness, be applied to the gods. There, Shankaracharya lays down quite distinctly that so far as the creation or the annihilation of the root-elements of the universe (*Tatwas*), that is to say, the different kinds of ultimate atoms of each plane of the cosmos is concerned, it is the Supreme Logos alone that is the absolute Lord and Master. What is true of matter, is equally true of force or cosmic energy. Neither the one nor the other could be created or be destroyed by any but the Supreme Being Himself. Still, within the limits, the devas are perfectly free, that is to say, they are masters in their own particular spheres of action or realms of activity.

HIRENDRANATH DATTA.

RANA KUMBHA: A STUDY FROM ORIGINAL SOURCES.—III.

[*Concluded from page 344, Vol. V*]

There is a great discrepancy in *Tābākāt-i-Akbari* with regard to the date of the agreement. In the Gujarat section it is put down at the end of the year, 860 H. But in the Mālwa section it is dated three years earlier. This apparent inconsistency escaped the notice of Ferishta, who

freely used the *Tābākāt* in the compilation of his *Tārikh*,* Sikāndar, the author of a history of Gujarat entitled *Mirāt-i-Sikāndari*,† who wrote contemporaneously with Ferishta, agrees with the Gujarāt section of the *Tābākāt* in putting the year, 860 H. as the date of the alliance. Sikandar compiled his work from original sources. The only explanation of Nizamuddin's inconsistency that suggests itself to me is that the authorities consulted by him for the Gujarāt and the Mālwa chapters respectively furnished different dates, and that he followed them, like his own follower Ferishta, without critical examination. Nizamuddin is not very careful about his dates, as a rule. His friend Abdul Qādir of Badaon, the author of *Muntākhābut-i-Tāwānkh*, complains of his chronological inaccuracies even in the narrative of contemporary events. Sikandar's confirmation of the date shows that Nizamuddin faithfully followed his authorities for Gujarat. If we assume that he also followed the authorities for Malwa correctly, then, to decide which of the alternative dates is correct, we must inquire, which set of his authorities is the more reliable. A glance at the long list of historical works given in the author's preface to the *Tābākat-i-Akbari* shows that for four different chronicles of the Sultans of Gujārat, he does not mention a single work that derives its name from any of the Sultans of Mālwā. And two of the chronicles of Gujarat mentioned therein, the *Tabakat-i-Mahmud Shahi Gujarati*, and the *Masir-i-Mahmud Shahi Gujarati*, named after the prince who ascended the throne of Gujarat seven days after the death of Kutbuddin, must have been written by Kutbuddin's contemporaries. Therefore, we shall be nearer the truth if we take the date of the agreement given in the Gujarāt section of Nizamuddin's work as the correct one.

The confused way in which Sultan Mahmud's military operations in Mewar subsequent to the agreement is described, offers a greater difficulty. But both Nizamuddin and Sikandar notice certain synchronisms in the campaigns of the allied sovereigns. Taking these synchronisms as landmarks, I shall try to harmonize the divergent narratives in accordance with the chronology of Gujarat. Early in 861 H. (A. D. 1457-1458) the allied powers opened the war by simultaneously marching upon the kingdom of Mewar. The Sultan of Malwa advanced from the south-east, and the ruler of Gujarāt from the south-west. Finding himself between two great fires the Rānā decided to pursue two different policies with regard to his two assailants. As we have already seen, his entire military strength was not sufficient to enable him to meet either of them in the open field. And the same inadequacy of resources rendered the plan he had hitherto successfully followed against one invading army,—of making one of the fortresses the base of operations and exhaust-

* *Tarikh-i-Frishta*, Lucknow edition, Vol. II.

† Sir Edward C. Bayley's translation, "History of Gujarat," p. 147.

ing the enemy by repeated attacks—impracticable against the two. And yet if they were allowed to make a junction, his strongholds would be at their mercy. Rānā Kumbha, therefore, in the first place, determined to dissolve the coalition by buying off one of the allies, and then fight the other.

But his strong prejudice against the champion of the hated Shamsh Khan of Nagor led him to a serious mistake. Instead of opening negotiations with the indolent and unambitious Kutbuddin, who might have been easily won over, Kumbha sent presents to Mahmud. Mahmud refused the offering, and set about devastating the frontier districts of Mewar in right earnest. "No trace of cultivation was left." Officers were deputed to overrun Mandisor, *thanadars* were established in all the *pargannas*, and it was given out that the name of the conquered district will be changed into *Khiljipur*. But the rebuff, followed by such demonstrations, was not enough to overcome the aversion of the Rana to proposing any terms to the son-in-law of Shamsh Khan. He now determined to purchase peace with Sultan Mahmud at any price. He communicated his willingness to pay any amount of indemnity that the Sultan might demand. The rainy season was approaching. Mahmud therefore found it expedient to give in and withdraw his forces from the Rānā's territory for the time being. But as soon as the autumn had set in, he again invaded Mewar and re-occupied Mandisor.

While Kumbha had been conducting negotiations for peace with Mālwā, and emptying his treasury to satisfy the greed of the implacable Mahmud, Sultan Kutbuddin was advancing towards Kumbalmir. The Sultan pressed forward triumphantly, redeeming his promise by capturing Abu and handing it over to Kitapoda. When the Gujrati army neared Kumbalmir, the Rana left that stronghold and began to move towards Chitor. Sultan Kutubuddin followed in his wake. Suddenly during the march, Kumbha faced about and charged the pursuers. Fierce fighting began and was kept up throughout the day. Fighting was resumed on the day following. "The Sultan himself fought with the valour of a Rustam." The Rajputs were ultimately driven to take shelter among the hills. Sikandar's version of the action is somewhat different. According to him Kutbuddin marched upon Chitor. Rana Kumbha came out of Chitorgarh with 40,000 horse and 200 elephants to meet him. Fighting continued for five days. But the Sultan got the better of the Rana in the end, and the Rajputs withdrew into the fort. Kutbuddin then invested Chitor.

Defeated in battle and compelled to fall back upon his old tactics of making a fortified place his base, Kumbha now saw clearly that it was no longer in his power to prevent the combination of the two invading armies. His only hope now lay in opening negotiations. The bad faith of Sultan Mahmud had already convinced him of the futility of expecting anything from that quarter. And we must record it to his credit that he

never again, even when his fortune was at its lowest ebb, humiliated himself by proposing terms or sending presents to Mahmud. He was therefore compelled to turn to the king of Gujarat. Sultan Kutbuddin readily accepted his *peshkash* and granted peace, imposing only one single term upon the Rana—that he must never again invade Nagor. Sultan Mahmud received the formal cession of "the district of Mandisor and several other *pargannas* adjacent to the territories of Malwa," as his share.

Although driven to sue for peace and acquiesce in the annexation of a certain portion of his territories, the daring but politically purblind Rajput had forgotten nothing and learnt nothing. Before three months had elapsed, Kumbha broke the covenant and led 5,000 horsemen to Nagor. But he had to pay dearly for this act, which history must condemn as a treacherous folly. Sultan Kutbuddin at once began to assemble a force for a punitive expedition. His ally marched upon Ajmere. In the Mālwā section of the *Tābākāt-i-Akbari*, the author says that a short time after the conquest of Mandisor, Mahmud was reminded that Ajmere, which contained the tomb of the famous saint, Shaikh Muinuddin Sanjari, was stiil in the possession of the infidels. This reminder is credited with having roused him to move against Ajmere. But as Mahmud had already stipulated for the conquest of Ajmere in his agreement with Gujarat, such a reminder, unaccompanied by circumstances favourable to the undertaking, could have very little weight with him. With the late treaty, his plan of keeping the Rana engaged in fighting the Gujratis and pushing his conquests with comparative immunity, came to a premature end. It was, therefore, the opportunity that offered itself owing to Kumbha's bad faith and consequent military preparations in Gujarat, rather than any fresh recrudescence of religious farvour, that led him to hasten towards the much-coveted Ajmere.

Ajmere, which formed part of the Pathan Empire of Delhi since its conquest from the Chauhans by Kutbuddin Ibak, is said to have been annexed to the kingdom of Mewar by Rana Kshetra, the great-grandfather of Kumbha. Mahmud reached Ajmere by forced marches. He at once laid siege to the fort, entrusting to his several nobles the posts round it. Gajadhar was the commander of the Rajput garrison. Before Mahmud had time to deliver an assault, Gajadhar sallied out with a picked body of [illegible] and flung himself upon the enemy. For four days desparate fighting raged between the besiegers and the besieged. On the fifth day, Gajadhar made a furious sortie with his entire strength. Unfortunately for the Rajputs, he fell in the struggle. The leaderless Rajputs were easily routed. A body of Malwa sepoys now mingled with the disorderly Rajputs during their flight, and got admittance into the fortress. The gates were opened. The besiegers rushed in. Ajmere fell into the hands of Mahmud. Then followed the massacre of the gallant defenders. "All the lanes were covered with the corpses of the slaughtered Rajputs." And where was

Rana Kumbha? The echo of the clangour of arms in Gujarat had already awakened him and drawn him back to his kingdom. Although the report of his abandonment of the expedition had induced Kutbuddin to leave the camp for the capital, and to relapse into indolence and pleasure, he himself could not withdraw his attention from the Gujarat frontier until he had reassuring intelligence from that side. The victor then busied himself in making arrangements for the occupation and retention of Ajmere, and that done, proceeded to invest Mandalgarh.

In the meantime Kumbha had got definite informations regarding the movements of Kutbuddin, and had hastened to anticipate Mahmud at Mandalgarh, Mahmud reached Mandalgarh by uninterrupted marches, and at once set to work to lay siege to the stronghold. Kumbha rushed out to attack him, and dividing his men into three columns, charged the flanks and the centre of the enemy simultaneously. Fierce combat raged throughout day. At sunset, the combatants retired to rest. On the following morning, the nobles and the ministers represented to the Sultan that as his men were exhausted by continuous hard fighting, and as the rainy season was also drawing nigh, they should retreat to Mandu, and after taking rest for a while, return to the siege reinforced. Sultan Mahmud ordered a retreat from Mandalgarh accordingly.

In 862 H. (A. D. 1458-1459) the confederates resumed war with great vigour. Early in the year, Sultan Mahmud assembled a large army and began to move towards Mandalgarh. Sultan Kutbuddin also roused himself, probably at the instigation of his vigilant ally, "and screwing up his resolution to punish" the Rana, advanced towards Sirohi. Kumbha, placing a strong garrison at Mandalgarh, planted himself in Kumbalmir to oppose the Gujratis.

Mahmud advanced to Mandalgarh by slow stages, carrying fire and sword and occupying the *parganna*s in the neighbourhood. Then for the third time he invested Mandalgarh. He had the strongest of motives to exert himself to the utmost. He well knew that if he should fail in crushing the power of the Rana in the present campaign, he must no longer count upon the co-operation of his indolent ally. He and his followers had a sort of personal grudge against the fortress, for they had what, in plain language, must be called two defeats to avenge. His equipment was also excellent. He had that most potent of machines in conducting sieges,—artillery, then a novelty in the east. The siege operations were pressed with the greatest energy. Defence works by besiegers, such as mounds, were pushed across the ditch, and erected close to the ramparts. At last the stronghold was taken, and a great number of Rajputs killed or captured, but not before the main body of the garrison with the women and children had time to withdraw from it and throw themselves into a fortified outpost on the summit of a hill. The guns began to play upon the outpost. The most

serious damage caused by the "roar of the guns"* was, the battering of the tanks and the consequent flowing down of the water stored therein. The condition of the besieged became unendurable on account of the want of water. At last they were forced to capitulate. The outpost was surrendered, and Mahmud granted safe-conduct to the garrison on payment of ten lac tankas as ransom. Thus fell Mandalgarh. Mahmud had started on the campaign in the first month of the Mussalman year, and the garrison capitulated early in *Zihijga*, the last month. On the following day, the Sultan entered the fort, and causing the temples to be pulled down, ordered the construction of the Jawa Masjid with their materials. Judicial and ecclesiastical officers like the *Kazi*, the *mufti*, the *Khatib* (the reader of the public prayer), and the *muazzin* were appointed, together with a kotowal, and all other necessary arrangements were made for the administration of the conquered territories. The victor then directed his course towards Chitor.

Sultan Kutbuddin had been advancing by the route he had followed in his two other expeditions. The Raja of Sirohi retired to the hills at his approach, and the Sultan, for the third time, delivered the Sirohi state over to plunder and burning. He then passed into Mewar, and proceeded towards Kumbalmir. Information now reached him that "while marching on Mandpur, Sultan Mahmud Khilji had turned his attention towards Chitorgarh, and had occupied all the *pargannas* in the neighbourhood of Mandpur." Mandpur is here a mistake for Mandalgarh, and the news from Mahmud's camp refers to the devastations of the neighbouring territories by Mahmud, before he sat down to invest Mandalgarh. "Sultan Kutbuddin, with firm determination, besieged the Rana within the fortress of Kumbalmir. When the siege had gone on for a while, the difficulty of capturing the fort became evident, and the Sultan, abandoning the siege, turned his face towards Chitor; and after wasting and pillaging the neighbourhood of that place, returned to Ahmadabad."

Such is Nizamuddin's account of Sultan Kutbuddin's last campaign in Mewar. The privations and losses endured by his troops, and the cause of their retreat may be guessed from the following casual remark of the same author. "Among the *sipahis* almost all had lost their horses during this expedition." Besides causing great distress to the long-suffering peasantry of Sirohi and Mewar, Kutbuddin's invasion had contributed to one great loss to the Rana: it had enabled Mahmud to capture Mandalgarh. That triumph also must have cost Mahmud dear. For although after the capture of the fort he is said to have set out towards Chitor, nothing more is heard of this new enterprise, and Mahmud never again led any expedition to Mewar in person.

The heavy losses sustained by himself and the heavier sufferings of

* *Sada-i-top.*

his people now opened the eyes of Rana Kumbha. He clearly saw that his pulling down the three *kungrahs* (turrets) of the fort of Nagor, an act of mere caprice, lay at the bottom of a three years' cruel war. He now for ever dismissed the Kungrahs from his imagination and sent an embassy to Ahmedabad to conciliate Sultan Kutbuddin. The Rajput envoys were cordially received by the Sultan, and peace was restored between Mewar and her most powerful neighbour—a peace which lasted for half a century without interruption, until Kumbha's grandson, Rana Sanga, inspired by a great policy, undertook to interfere in the affairs of Idar. Sultan Mahmud had to accept quietly the treaty of peace. Further weakening of the Rana was not in his power. With the solitary exception of an expedition under his son, Ghyassuddin, a year later, when that prince penetrated as far as Kumbalmir, but was scared away by the apparent strength of the fort, the army of Malwa never again crossed the frontier of the Rana's dominions in Mahmud's lifetime.

This is all that we can know of Kumbha from Mussulman writers. The materials furnished by them are very scanty and scattered. [The remarkable personality of the Rana is always in the background] But though non-contemporary, yet, on the whole, they are of undoubted authenticity. Tod gives a brief account of Kumbha's reign in the eighth chapter of his *Annals of Mewar*. The present sketch differs from his narrative in some very essential points; nor could we accept Tod's account of the last days of the Rana as authentic unless it was corroborated by some contemporary authority. We must, therefore, here bid our hero good-bye. It would be unfair to base any estimate of his character upon such scanty and one-sided evidence. But we cannot withhold our praise from his high soldierly qualities. He had a real genius for defending forts. He may be regarded as one of the early examplers of Napoleon's maxim, "the best way to defend is to attack."

The place that Rana Kumbha occupies in the history of Mewar and of India is a prominent one. Although in his wars Mewar lost a great deal materially, her moral gain was immense and invaluable. Kumbha gave a new direction to the historical development of Mewar, and inspired her people with a true spirit of national aspiration. Alone among the Indian races, the dwellers of that favoured corner of Rajputana have never been wanting in national feeling. When Alauddin Khilji conquered Mewar early in the fourteenth century, the Mewaris, by their patriotic turbulence, made the government by the lieutenants of Delhi Emperors impossible; and thus creating circumstances favourable to the return of their native prince (who had been forced to become a fugitive) brought about the recovery of national independence. The little nation grew steadily in strength and influence under a succession of able rulers. Rana Kumbha first revealed to it its latent power. Great in daring, the nation proved itself even greater

in endurance. Henceforth the lofty mission of stemming the tide of Mussulman anarchy and ambition was imposed upon the people of Mewar, and the ground was prepared for them to achieve such heroic leaders as the imperial Sangram Singha and the unconquerable Pratap.

RAMAPRASAD CHANDRA.

WIRELESS TELEGRAPHY,

As Illustrative of the Progress of Science and its Applications.

[BY DR. MAHENDRA LÁL SIRCAR, M. D., D. L., C. I. E.]

The reason, why wireless telegraphy is being made so much of, and is looked upon as a marvel in these days of scientific marvels, is that whereas in ordinary telegraphy messages are conveyed by a continuous wire conducting an actual voltaic current from one station to another, this continuous connecting wire between two stations is absolutely dispensed with in this form of telegraphy. The messages are conveyed across space, not by what is called an electric current but by some influence which is electrical in origin as I shall presently explain. The electric current is not and cannot be dispensed with at either the transmitting or the receiving station. Indeed, it is indispensably necessary in both these stations and is made use of at the receiving station, as in ordinary telegraphy. Hence, in both these stations wires are a *sine qua non.* No telegraphy by means of electricity can be absolutely wireless, and therefore the term is not logical, but no better substitute has been found.

I will speak only of two forms of wireless telegraphy, that dependent upon induction as devised by Mr. Preece, and that dependent upon the influence of electric sparks as elaborated by Signor Marconi. In both we have the play of electric waves, but whether it is the same kind of waves in both, or different from each other, has to be determined.

In order that you may understand the working of the first form, I shall have to carry you back to Oersted's discovery of the action of an electric current on a magnet, made about the end of 1819 or beginning of 1820. The discovery was this, that when a wire joining the poles of a battery, that is, conveying an electric current, which is supposed to proceed from the positive to the negative pole, is placed in the neighbourhood of a well-poised magnetic needle, the needle, though not touching the wire, and placed at a distance from it, is affected in the following way: If the wire is parallel to its axis and placed above it, the needle deflects, its north pole going to the west when the direction of the current is from south to north, to the east when the current is from the north to the south. Ampére has generalized this into the formula that the north pole deflects to the left of the current, supposing the current to have its feet towards the positive pole and head towards the negative pole and always looking towards the needle.

Such is the law of the action of an electric current upon a magnet. And as this holds good whatever the position of the needle with respect to the current, above or below, to the right or to the left, or any other intermediate position, and at all angles, except the right angle, the inference is forced upon the mind that the current exerts a force all around it, which tends to set a magnet placed in that space at right angles to the current; in other words, the current creates a magnetic field in this space. How far into this space the force extends, must be determined by experiment. . . .

If we cause a vertical wire conveying an electric current to pierce a horizontally placed card board, and if we strew on the card board and around the wire some iron filings, we shall find that these filings do not remain indifferently in any position, but arrange themselves in concentric circles around the wire, the circles becoming less and less manifest in proportion as the filings are more and more distant from the wire. If we increase the intensity of the current we shall find that the fainter circles become more pronounced, and that other fainter circles are produced beyond them, till at last no circles are visible further beyond; showing that the magnetic force produced by the current decreases with the distance.

You will see from this experiment that we have in iron filings a means whereby to detect the existence of the magnetic force produced by an electric current around it. A stronger evidence of this force is afforded by the actual production of magnetism in a bar or rod of soft iron or steel by an electric current circulating round it, as was discovered by Ampère, almost immediately after Oersted's discovery. Magnetism thus developed is called electro-magnetism. Now, by means of electricity we can produce magnetic force of any intensity, which we cannot do by the ordinary processes of magnetization. Ampère further discovered the relations of electric currents with one another and their laws with mathematical precision, so that within a few weeks of Oersted's discovery the science of electro-dynamics was complete. "'The experimental investigation by which Ampère established the laws of the mechanical action between electric currents," as Clerk Maxwell has well said, "is one of the most brilliant achievements in science. The whole, theory and experiment, seems as if it had leaped, full grown and full armed, from the brain of the Newton of Electricity.' It is perfect in form, and unassailable in accuracy, and it is summed up in a formula from which all the phenomena may be deduced, and which must always remain the cardinal formula of electro-dynamics."

While Oersted's discovery was fruitful in the establishment of electro-dynamics, it was fruitful in another direction, in the invention of the galvanometer. Shortly after the discovery, Schweigger, of Halle in Germany, conceived the happy idea of magnifying the effect of the current on the

magnet by taking the same wire conveying it several times around a magnetic needle, the portions above the needle being parallel to those below. From the fact of such an arrangement having the effect of multiplying the action of the current, Schweigger called it the *Multiplier*. Under this arrangement, the existence and direction of even a feeble current can be at once detected. The sensitiveness of the instrument was further increased by Nobili of Florence by the use of what he has called an astatic needle, that is, a system of two needles of equal length and as nearly as possible of equal magnetic intensity joined together rigidly by a light wire, and such that the needles are parallel with their north and south poles opposed to each other, and placed in reference to the coil conveying the current so, that one needle is within and the other either below or above it. Such an arrangement, as you can easily understand, must be a great deal more sensitive than Schweigger's multiplier, because the astatic system is very nearly, if not entirely, independent of the directive action of the earth, and because the current in the coil has a multiplying effect upon two needles instead of one.

It is impossible to estimate the immense impetus which the invention of the galvanometer has given to electrical science. The greatest and the important discoveries that have since been made could not have been made without it. The next discovery which concerns us most to day, and which was made by Faraday, could only have been made with the aid of the galvanometer. This discovery, which by its practical importance has thrown into the shade all other discoveries, and which may be said to have changed the aspect of modern civilized life, is that to which we owe all the forms of wireless telegraphy. It is the discovery of the induction of a current of temporary duration in a conductor by a current in its neighbour hood. The secondary current thus induced is in opposite direction to the primary or inducing current.

The reason why the discovery was not made earlier is because philosophers expected the induced current to be of equal duration with the primary current, whereas it is, in reality, of momentary duration. Here is a coil of copper wire the extremities of which I connect with this galvanometer I hold it above and parallel to this coil on the table, the extremities of which I connect with the poles of a battery, and you see the needle of the galvanometer deflects, but the needle after a few oscillations returns to zero, though the current be passing through the primary coil. But just observe what takes place when I cause this current to cease. The needle deflects again but in the opposite direction to that of the previous deflection, and the deflection ceases at once and the needle returns to and remains at zero as long as the battery connection is not again made when the needle deflects again just as when the connection was first made. Thus during make and break of the current in the primary there is an electric current set up or induced in the secondary wire, but of momentary duration.

Simultaneously, Faraday discovered that magnets also induce such momentary currents in neighbouring conductors, and the direction of the currents are according to the nature of the poles, and according as they are approached or receded from the conductors.

These discoveries of volta-electric and magneto-electric induction led to the invention of magneto-electric and dynamo-electric machines whereby electricity of any quantity and intensity may be produced ; to the invention of the inductorium, which, from the improvements effected in it by Ruhmkorff, generally goes by the name of Ruhmkorff's coil, whereby electricity of low can be converted into that of high potential, that is, dynamic into frictional electricity; and to the invention of the telephone which has become a most delicate detector of even the feeblest currents of varying intensity.

It is by means of the telephone that the field of force produced by an electric current has been found to extend much beyond that which could be detected by iron filings and even by neighbouring conductors connected with the most delicate galvanometer,—much beyond what Faraday could dream of. We owe these astounding discoveries to Mr. W. H. Preece, lately Engineer-in-chief to the telegraphs of Great Britain. In 1884, Mr. Preece noticed that "the telephone wires were disturbed on the tops of houses eighty feet high by the telegraphic work going on in the underground wires in the street parallel to those overhead," and could only be got over by diverting the telegraph wire to a more distant route.

I shall now refer you to a few experiments to show you the extraordinary properties of an electric current, and the capabilities of the telephone. I connect the extremities of the coil on the table with a Leclanché cell and an electric trembler, or buzzer, as it has been called from the noise that it makes so long as its connection with the cell continues. I take another coil *unconnected with the former*, and I connect its extremities with the binding screws of a telephone. Now, I hold this second coil over and parallel to the first coil, and you hear the sound of the buzzer reproduced by the telephone, which becomes fainter and fainter as I cause the second coil to recede from the first, or instead of causing it to recede, I hold it at an angle with the other, and you see that the greater the angle the fainter the sound in the telephone which vanishes altogether when the angle is a right angle, showing the conditions of increase and decrease of the secondary current, as evidenced by the telephone.

Now I take the primary coil, with cell and buzzer, to the other side of the wall behind me, and hold it at some distance from it but parallel to it, and I hold the secondary coil on our side of the wall, and parallel to the former, and you hear the sound of the buzzer reproduced by the telephone though much more faintly than before, which is accounted for by the

greater distance of the two coils, and also by the fact of the electrical influence, or waves if you like, having to pass through the thickness of this wall.

A second experiment will show more astonishing results. On the south wall of the laboratory I have stretched an insulated wire along its whole length of a hundred feet, about ten feet above the floor, the rest of the wire, which is a great deal more than 100 feet, I have brought down on the floor, and I have connected the extremities of this wire with a battery and the buzzer, so that, while the buzzer is trembling, an intermittent current is passing throughout the wire. I have on our side of the north wall of this lecture hall stretched another similar wire at the same height above the floor as the former. With the extremities of this wire a telephone is connected. The walls are about 34 feet distant from each other, and yet you see the waves generated by the current in the first or primary wire has passed across a space of more than 34 feet, and through the whole thickness of this wall, and have been caught by this the second or secondary wire, as is evidenced by the reproduction (faintly of course) of the sound of the buzzer by the telephone.

You can now easily understand how messages can be sent across space without intervening wire by induction from one straight wire to another parallel to it. But you will also see how the distance must practically be very limited. It has been found by repeated experiments, which I have verified on a small scale, that the distance between the two wires, that is, between the receiving and the transmitting stations, should not exceed the length of either wire. Thus, though induction theoretically extends all round the inducing wire across space to any distance, practically the parallel wire which can catch the induction waves from the primary, so that they may be utilised by the telephone for purposes of telegraphic message, must be of equal length with the primary and its distance must not exceed its own, or which is the same thing, its fellow's length. That is, if we want to send a message across a mile we can only do it by having the inducing and the receiving wire each of the same length. But this is not all. We must have a battery of proportionate electromotive force. For it has been found that with the same electromotive force the induction becomes fainter and fainter as the distance increases.

These are the conditions which limit the practicability of Mr. Preece's method of wireless telegraphy. And though in name wireless, we require in this system double the length of wire that is required in ordinary telegraphy. But Mr. Preece would seem to have succeeded in reducing the length of the wires, by increasing the strength of the induced currents which he has effected by raising the frequency of the makes and breaks of the primary current to 400 per second. We learn from Mr. Fahie that since March 1898, "this system has been permanently established for signalling between

Lavernock Point (in Glamorganshire) and the Flat Holm (island in the Bristol Channel), and has been handed over to the War Office. Permanent lines of heavy copper wire have been erected parallel to each other, one on the Flat Holm and the other on the mainland." As the Flat Holm is only a mile and half in circumference, these wires must each be much shorter than the distance between Lavernock Point and the Flat Holm, which is 3.3 miles. The system is now worked with 50 Leclanché cells on either side, and the addition of Mr. Sydney Evershed's relays for working the call-bells, has made it complete and practical. "It is said that as many as 40 words per minute have been transmitted without the necessity for a single repetition—a speed which few telegraphists can achieve, and still fewer can keep up." It remains to see what is the greatest distance which can be bridged over by this method. So far for the system invented by Mr. W. H. Preece.

[*To be continued.*]

MAHENDRA LAL SIRCAR.

INDIAN ART MANUFACTURES IN SOUTHERN INDIA.

(BY DR. GEORGE WATT, C. I. E.)

Lord Curzon's idea is that the ordinary traders have pushed the minor industries sufficiently and want little or no help. The industries that want help are the larger and more expensive industries. The danger in India is that it is becoming so rapidly Europeanised that we are daily losing the indigenous arts of the country, and just as certainly is its prosperity being injured. The art of a country or a nation is like its Poetry or its Music. It is the evolution of centuries, and you cannot suddenly stop it and engraft the art of another country without causing the indigenous art to standstill. You arrest the course of its evolution, and the artificers, from being artists become copyists, and as a copyist, the native of India does not shine. He is as stiff as possible. Give him leave to produce his own,—the original article by his own methods, and you have something beautiful beyond words.

At Rajamundry I had brought together all the carpet-weavers with samples of their carpets, three classes of the article being shown me: First, carpets of foreign design,

mostly Persian, which were almost universally bad; the colours were poor and crudely blended and the patterns and designs were defective. Another class of carpets shown were collectively designated "Ramchunders." These were really good; the colours were directly adapted to the pattern and were all blended. They were, however, made of a very low class of wool; mostly hair. By far the most interesting exhibit was a large ring, which I regarded as the *original* style of Rajamundry and Ellore carpet-weaving. It might be described as a reproduction in pile carpet of the exceedingly beautiful grass mats which formed a striking feature of export from the northern parts of Madras, a century or more ago. They are chaste and simple in design, and there is apparently some clever method of producing so good a pile, considering the comparatively small number of threads they use to the inch. *Now I shall order and take as much as they can give of this class—of goods—the original pattern, the art of manufacturing which will in a little while be lost entirely.*

Modern trade requirements are the bane of the old arts and industries. Thus, Masulipatam, Coconada and all that part of the Coromandel Coast was famous for a hand-painted fabric—a most beautiful fabric it was. But the art has been practically ruined because they have taken to imitating the English patterns, using block prints instead of hand-priting. *Now what I am doing is to send for the original patterns and to give them back to these artificers and say to them, "There is your pattern, reproduce it and we will buy as much as you like."*

This deterioration is not confined to the places I have mentioned. It is universal throughout India. Indian Art has ceased to advance along Indian lines. The whole nation is becoming one of futile copyists. If Indian artizans go on as they have been doing, they will soon become too impotent to even copy. Tho whole of India is running after false ideals in Art and ruining its splendid

indigenous industries in their blind rush after what they think is western and prized by us, westerns. Some day a reaction will come. The people of India will demand indigenous work, indigenous art; and when that day arrives, if the decadence that is now taking place continues, Indian Art, Indian thought and feeling will be dead. It is dying now and all we can hope to do is to keep it alive till the day of revival comes.

HINDU SOCIETY AND THE HINDU SYSTEM OF EDUCATION:—A REFUTATION.

In his address, delivered last year, at Bangalore, on 'Education and Religion,' the Rev. Dr. Whitehead, the Bishop of Madras, is reported to have said:—"What struck me most was the curious and complete contrast they (Sanscrit *Tols*) presented in almost every point to the Indian Universities in modern days. They were open only to a single caste. Only Brahmins were allowed to study there, while the Modern University is open to all castes and all creeds.' * * * 'The course of study was confined to the sacred books of Hinduism and consisted entirely of Philosophy, Logic and Grammar, whereas the course in a Modern University includes a comprehensive study of the facts and laws of nature and human history.' * * * 'Now there can be no doubt that looking at the two, as systems of education, the Modern University is infinitely superior to the Sanscrit *Tol*. The object of education in the former is to prepare the young for the work of life and responsibilities of manhood. But the course of study in the Sanscrit *Tol* is entirely out of touch with practical life. It leads the student into a region of abstract thought and involves him in a maze of verbal controversies and hair-splitting disputes, which have no relation to man's practical duties and responsibilities in the present world, and its exclusiveness is fatal to its freedom. The mere fact that the *Tol* is limited rigidly to a single caste is quite enough to rob it of that atmosphere of freedom which is essential for the true development of thought."

In the above, Dr. Whitehead has entirely ignored the fundamental principle underlying the constitution of Hindu Society. If society is an organism, as it certainly is in the opinion of the best thinkers, then the principle of 'Division of Functions' among its members, on which the Hindu Society will be found, on examination, to be based

cannot be regarded as otherwise than natural. Whether such division should be *regulated by* the Law of Heredity (*as the chief* determining factor in individual fitness) or by the Principle of Fitness or Merit, (*as understood by each individual, according to his or her lights*) is altogether a different question. The Hindus believed in the Law of Heredity; they believe that a son, other conditions being equal, must inherit a sort of instinctive and, therefore, greater aptitude for the family occupation than for any other which is foreign to the family. The belief may be right or it may be wrong; but the Hindus believed it to be right and their society is based on that belief.

It may be urged that a cobbler's son, given the chance, might prove himself to be a genius, say in inventions or in the military line, and that it would be a great loss to society if such young hopeful were prevented from following his own inclinations and confined for life to his ancestral profession of shoe-making. There may be some truth in this argument, but it has to be remembered that rules are for the generality and not for the exceptional few. Because there may be a few persons with six fingers, would that be a reason for altering the general rule of preparing gloves for six fingers? Then the question arises, why should society look for its great men in unexpected quarters? If society fails to find the right men invariably in their right quarters, the inference cannot be that the principles of Heredity are wrong. Plants bear flowers and fruit after their parents and develop best in the soil and atmosphere that are most congenial to them. The same is true of human beings.

[**Note by the Editor.**—For an exhaustive discussion on this little-understood subject, the inquiring reader is referred to the following works by Francis Galton, F. R. S., D. C. L.,—(1) Hereditary Genius; (2) Natural Inheritance; (3) Huxley Lectures for 1901, where he will find the Hindu view on Heredity considerably strengthened. He is also invited to consult the third volume of "Darwin and After Darwin" by the late George John Romanes, M.A., L.L.D., F.R.S.—the vol.— dealing with the subject of "Isolation and Physiological Selection." Mr. Romane's arguments throw quite an unexpected light on the strictly scientific basis of an hereditory caste.—*Editor, Dawn.*]

When Dr. Whitehead finds that the course of study in the *Tols* is confined entirely to the sacred books of Hinduism, should he wonder why candidates for other professions are excluded? The *Tol* is not the *whole* Hindu Society. It would be a mistake to expect of a part the full functions of a whole organism. A *Tol,* if it

has to preserve its identity, must remain a *Tol*, it cannot be anything else; it cannot without committing suicide convert itself into a combined institution for religious and workshop education. The brain must perform the function of the brain and that only; it cannot without injury to the whole man include functions foreign to it, however useful they might be. In society, as in man, interchange of functions among different members, far from being a gain, is a positive loss. The *Tol* system never included useful technical education, and rightly so, simply because such education was *outside its legitimate function and was provided for elsewhere within the society.* The Hindus never could have managed to exist from a pre-historic age up to the present day without some sort of institutions to train their youths in those useful arts and industries, in which they are known to have excelled so much in past times, and which even at the present day draw the admiring attention of the Western world. It is the Hindus who gave to the world that most simple yet *most useful* knowledge, the Decimal system of Notation—a product of the abstract thoughts of the Hindus. If the courses of study were really confined 'entirely' to Philosophy, Logic and Grammar, how would the Doctor account for the knowledge of the ancient Hindus in such useful branches of education as Arithmetic, Algebra, Geometry, Trigonometry (both plane and spherical), Astronomy, Law, Medicine, Architecture, Agriculture and the like? In Music, the Hindus attained a degree of excellence not even dreamt of in the West. The Hindus had their Drama and their Stage long before they were developed in the West. In matters sanitary, the West has yet to appreciate and adopt that most sanitary method of disposing of the dead—cremation. It may interest Dr. Whitehead to know that from these seemingly useless hair-splitting disputes and abstract thoughts have sprung such transcendentally useful truths as the 'Indestructibility of Matter,' 'Identity of character between cause and effect'—truths which, in the opinion of the late H. H. Wilson, 'have been familiar to Hindu speculation from the remotest periods' and which 'dissipated but recently the illusion of "substantial forms" which had prevailed for ages in Europe.' The scientific basis of Astrology and of Yoga have yet to be understood by the West. The *essence* of Christianity—namely, belief in 'Divine Incarnation'—is primarily a Hindu Doctrine. Then, again, the doctrines of Karma, of Rebirth, of the *essential* Oneness of the Supreme Soul and individual souls, and, lastly, *the most useful of all earthly usefuls*, the discovery of the means by which to attain Final Liberation or Beatitude, are a few among the many transcendentally

useful legacies left by the ancient Hindus for the good of mankind at large. To compare the merits of *Tol* and University education would be like comparing the merits of gold and iron in point of usefulness. Iron, however useful, cannot replace or be superior to gold, which has a value and use peculiar to its own. To find fault with the Sanscrit *Tols* for not providing useful technical education, would not be less inconsistent than to find fault with the bookseller for not having in his shop for sale, such an every-day useful article of life as bread. He who wants bread must go to the baker and not to the bookseller, there can be no question about 'exclusion' or 'freedom' in the choice.

M. K. BHATTACHARJEE.

FROM THE LIPS OF A SAINT.—IX.

THE PROBLEM OF LIFE AFTER DEATH.

(*Rendered into English by Radhakumud Mukerjee, M.A.*)

In this country or any other, wherever man lives, there is always in the minds of men some vague notion or idea of "परकाल" or the "life-beyond," though we may not find the word itself actually in use. The idea that the soul of man lives on after the death of his body is a very common idea everywhere. Undoubtedly, therefore, it must be held that there is some mysterious cause for the general currency of the idea.

The objects we seek to gain a knowledge of all exist outside of us, but the mental process which makes them intelligible to us is within us. Thus, the moon, the sun, the mountain, the sea are all outward objects but the power which reveals to us their attributes abides in the soul. Among the birds and beasts there is no such inner power of knowledge. They have only the bare consciousness of a sensation; they cannot know the uses of an object or the relation in which it stands to other objects. They can only distinguish the objects of their food or drink or medicine, which power they have been endowed with by God from their very birth. Such power of theirs does not wait upon educationn nor does it improve through education. Man's power of understanding things, on the contrary, depends on education and is capable of gradual development.

Man's knowledge is of two kinds:—(1) Introspective or subjective; (2) external or objective. Such knowledge as enables us to know of the objects of the outer world is objective knowledge. By

means of this knowledge we discern the relative qualities of objects and thus are able to promote the good of the world. Those who have not learnt to put on clothes, even they—ignorant as they may seem—can acquire this knowledge. The other aspect of man's knowledge extends to his inward self. As of a tree one part lieth hidden underground, the other lieth outside, the root is in the soil and the branches are outside; so of wisdom also, one part lieth outside and the other in the mind. The wisdom by which we grasp the truths that are within us we call subjective or *introspective* wisdom (*lit.* looking within). Thus, the discovery of causes from effects, the feeling of gratefulness towards a benefactor, of admiration for a skilled workman, the knowledge of the world as an entity, as also of the existence of the soul, and knowledge about the Creator of this universe are all due to this power of introspection. *As all this knowledge existeth naturally in every soul, so also doth the knowledge about a future life after death exist of itself in the human soul.* As man's objective wisdom grows through training; so also and quite as much man's subjective wisdom grows through training. As the knowledge of the outward objects, the stars and planets for example, cometh from the cultivation of sciences like Astronomy, &c.; so likewise the knowledge of the truths of the inner world depend upon the due exercise of the faculty of introspection. Gratitude, kindness and such-like qualities all abide in the heart; and the more we cultivate the power of inner knowledge, the more should we be able to grasp them. Such uncultured people as do not even know how to read and write—even these believe in immortality,—in life after death. The Kookies, the Garos and other savage people also have faith in it. All this proves that the idea of a future life exists quite naturally in man—whilst culture or training renders it clearer or else it remains dim. The scriptures of every nation in the world do speak of a future life. In this country, we hear the cries of 'Alas! Where hast though fled?' Where hast thou gone?" uttered by the relatives of a deceased person; but how would you explain such cries? The *body* of the dead man remains there, as before, but still this cry; why? The reason is that the people that utter such cries know that he who was present in the body is no longer there. The same fact also renders the body impure and the usual purifying cowdung-water is sprinkled on it. All this shows the evidence of commonsense in favour of a future life. Now many will ask, "Is all this sufficient proof of a future life?" No, let us see then what proofs there be.

First of all, what *is* death? What *is* it to die? The *body*

remains after death—then, what is *death?* Yes, but the life is fled, the lifeless clay remains. God's creation consists of two kinds of objects—(1) animate, and (2) inanimate objects. Those that have the power of thinking, that can move wherever they please, that have memory, are animate objects; and those which have not these powers, which cannot do these things are inanimate objects. In the opinion of ancient scholars like Charvaka, &c., and also of some of the moderns, objects that we call animate are not independent, *i.e.*, original in their nature but are merely derived products; animation or due life being, in the view of such scholars, only a sort of chemical property due to the interaction between independent inanimate objects. They assert that as turmeric is yellow, and lime is white and the mixture gives rise to a new sort of colour: and, as also mercury and sulpher when chemically combined give rise to a new colour; so likewise it stands to reason that though two objects are inanimate, yet their contact may give rise to a new quality—that of life? Those who are opposed to this view argue that if you mix two things, you cannot produce by *mere* combination of them, some new property which is *generically* non-existent in the things themselves. Now, in the first place, colour is an attribute of inanimate objects. In the second place, in reference to the new colours produced by a mixture of the turmeric and the lime, or of the mercury and the sulphur, these were already *generically* in the original objects and the combination has only brought them out to greater light: but what never *was* has never grown—for, *ix nihilo nihil fit*, out of nothing cometh nothing. Now, the human body is made up of inanimate matter, or matter devoid of life. Now, no property can grow in the compound which was not generically in the elements. Whence it follows *that* life cannot grow out of a compound of *inanimate* objects. If life subsisted in inanimate objects or could it grow out of a mere combination of such, then why is it that such big objects as the sun and the moon, the stars and the planets show no symptoms of life? So that it follows that what we call *life* is not inherent in the material inanimate objects—it is a totally different entity and it is this which we call *atman* or the 'soul.' Now, what is death? It is the dissociation of the elements which the body is made up of. When the molecules of the body through some causes are not properly held together but get relaxed, as it were, then the individual's soul, that *Jivatman*, can no longer inhabit it. As we use a room or its windows as we please; likewise do I (*the individual soul*) use the body also. As I have said before, the soul is not born of the inanimate atoms; hence it suffereth no death or destruction or dissociation. Neither are the inanimate atoms liable to destruction; for

they are only dissociated from each other. So that after death the soul continues in the same state and hence *there is life after death.*

Secondly. Whatever is God's will, is eternal. As *Creation is* His will, it is also eternal. Destruction is against the principle of creation; so nothing is destructible in God's creation. Hence the soul is eternal and there is a life after death.

Thirdly. There are in the human mind several *fundamental* or original conceptions, of which the notion of a future life is one; therefore there *is* such a life.

Fourthly. God is Just, and it follows that He rewardeth merit and punisheth sins. If then it happened that a person has not enjoyed his reward or suffered his punishment up to the day of his death, then surely he must have to take the consequences of his doings afterwards. If now the soul does not survive his death, who will enjoy the fruits of work done in this life? Hence, the continued existence of the soul is necessary; therefore there *is* a life after death. This law of Karmik fruits has been accepted by many great men.

Fifthly. There *is* in man an instinctive hankering after an everlasting life. Now, God has given us desires and also the means of their gratification. He has given us thirst, hunger and also water and food to satisfy them. If, then, He has given us this desire for an eternal life it quite stands to reason that there must be some provision for the satisfaction of this desire. Hence, the soul must continue after death; in other words, there is a life after death.

[*To be continued.*]

HOW THE STATE AND THE PEOPLE HAVE CO-OPERATED IN PROMOTING EDUCATION IN ENGLAND, (1800-1900 A. D.): LESSONS FOR INDIANS.

I.

THE BEGINNING OF THE REFORM MOVEMENT.

At the opening of the nineteenth century, immediately after the great Napoleonic War, a lively reform movement began in all departments of public life in England. The spirit of reform manifested itself specially in matters educational. Thus, in 1818, a Commission was appointed to examine into the administration of what were known as endowed schools, (*e.g.*, Rugby, Eton, Harrow, &c.,) and was followed in 1828 by the establishment of the London University on a non-sectarian

basis (so as to distinguish it from the older universities of Oxford and Cambridge which excluded many candidates on purely sectarian grounds). Then, in 1833, the Government *for the first time* gave grants-in-aid to the elementary schools; for State grants-in-aid of secondary education were not made until some after. It would appear therefore, that in England State aid did not come first but followed and supplemented a long series of reforms owing their origin to the initiation of individuals or of corporations, in other words, to the spirit of self-help among the people themselves.

II.

THE SECOND STAGE IN EDUCATIONAL ACTIVITY.

We have passed the first stage of reform activity in England in the matter of education. The second stage came in this way. By the peaceful revolution of 1832,—the first Reform Bill,—the autocracy of the aristocracy was broken and the industrial and commercial classes became emancipated politically. Two results followed. *First*, there was now a pressure upon the public offices which it has previously always been the privilege of the aristrocracy by birth to fill. Then there were also new demands—the necessity of teaching the children of the emancipated middle classes *practical and useful knowledge*, for which the older endowed schools had a sovereign contempt. Further, the older endowed schools were very expensive and were therefore exclusive; but the new schools for the middle classes must be cheaper and should adapt themselves, in the plan of studies and subjects taught, more to the requirements of the new period.

Thus, there began a movement in the thirties and forties of the last century for the institution of new schools, the first of which was the *King's College School* (1829) and the *University College School* (1833) in London, and these were followed by the City of London School (1837) which was established on an old endowment. These were all in the thirties: but in the forties and fifties of the 19th century came the "proprietary schools," a great number of them,—in all parts of England which were founded not by Government but by Stock Companies, and some upon a system whereby any one could purchase the right for a fixed sum to send a boy to the school at a reduced rate. The most important of them being Cheltenham College (1841), Marlborough College for the sons of clergymen (1843), Wellington College, (1853) intended specially for the sons of dead officers; Lancing College (1848), a specifically Anglican Institution; Rossall School (1844), Haileybury College (1862) whence Indian Civil Servants were recruited; and Clifton College (1862.)

III.

GOVERNMENT AND SECONDARY EDUCATION.

Practical considerations first led the English Government to interest itself in secondary education. The great industries which sprang up during the early part of the nineteenth century needed technically skilled men and draughtsmen and inquiries showed there were no schools for training them. So Parliament in 1836 granted an annual appropriation of £1,500 for a Drawing School to be held in Somerset House—which was the nucleus of the now famous Science and Art Department, at South Kensington—a department of science and art *in relation to industry* which now has a budget of nearly a million pounds. The department is in the hands of a Board charged with the duty of maintaining the great Museum at South Kensington and promoting the study of the practical sciences and arts in the widest sense, including, for instance, geometry, physics, mechanics, chemistry, geology, mineralogy, zoology, botany, design, &c. This Board usually proceeds in an indirect way by subventioning schools and classes in which these subjects are taught; and one of the conditions for admission of pupils is that they must be children of the "industrial" classes. There are regular inspections and examinations and according to the results of these £2 to £8 *per head* grants are paid. The Board also pays for regular attendance. Then, there are prizes for scholarships, as well as for contributions for buildings, physical apparatus, and museums. The result of the work of the Science and Art Department was that it brought the means of instruction to the doors of factories and workshops.

IV.

GOVERNMENT AND ELEMENTARY EDUCATION.

We have already seen that the grant of the first Government aid to Elementary Schools was made in 1833. The example of the Science and Art Department which first introduced the system of payment by results at an examination soon led to the introduction of the same vicious system into Elementary Schools. This system, which has been characterised as "free trade in instruction," may stimulate the schools but not in the proper way. It leads to narrowness, mechanical finish and "cramming" or dogmatic instruction. Many such schools lived entirely on Government grants earned, and regulated themselves accordingly for purposes of examinations; for they made it no part of their duty to teach.. We understand that there have been some recent regulations introduced by the Board of Education which have to a large extent remedied the evil above-mentioned.

V.

THE REFORM MOVEMENT AND THE UNIVERSITIES.

The spirit of the age acting on those time-honored but extremely conservative seats of learning, the Universities of Oxford and Cambridge gradually opened their doors to all the sciences. And not only so, but after all religious distinctions had become matters of indifference (1871), they became the champions of culture, and specially the promoters of secondary education. Thus, in 1873 was inaugurated what is known as the *University Extension Movement.* The work of this movement consisted in extending education *by means of courses of lectures in connexion with correspondence classes and examinations,* to those who could not obtain it otherwise. Its significance for secondary schools consisted partly in the fact that the lectures (*from a want of preparation on the part of the "Students"*) could not follow a University standard and were compelled to do the work of the secondary schools.

The work of the University Extension Movement was further reinforced *in part* by the numerous University Colleges in the great *industrial* centres of the Middle and North of England. The first of these was Owen's College, Manchester, (1851), which in 1880 was incorporated as Victoria University and has since been united with Liverpool University College and Yorkshire College, Leeds.

VI.

FURTHER EXTENSION OF POPULAR EDUCATION ON THE TECHNICAL SIDE.

About the end of the seventies and the beginning of the eighties, a fear of foreign and specially German competition suddenly seized English merchant and manufacturers. In England itself the competition of young German merchants and skilled labourers, who, in consequence of their better training and low salaries, excluded their English colleagues was severely felt. A Royal Commission was therefore appointed in 1880, whose Report (1884) showed that England was behind the continental nations in technical matters, and further that this was the result of *inadequate general education,* also a want of acquaintance with modern languages, economic geography, and industrial technology. The report and the agitation that preceded and followed it led to a marked extension of popular education on the technical side by means of new "Day and Evening Schools for Technical Education." Such schools were not intended to be substitutes for practical teaching, but only to remedy the mechanic's

inadequate or defective general education; to give him in fact a better *general* preparation for his business than he had before. The education to be imparted by these Schools was to be, as Professor Huxley explained, "simply a good education with greater attention to natural sciences, drawing, and modern languages than is usually given." In short, the ideal of this education corresponds closely to the German *realschulen*.

In this way arose in London—through the public spirit and generosity of the old city guilds and also of the middle classes—in the great industrial centres like London, Birmingham, Manchester, Bradford, Huddersfield, &c.,—Day and Evening classes and such up-to-date institutions as 'The City and Guilds of London Institute' and various polytechnics and technical schools, &c., on the ruins of older institutions like the *Mechanics' Institutes*, which had done noble pioneer work for the industrial classes but were found unequal to the increased requirements of popular commercial education.

VII.

LESSONS FOR INDIANS.

From a careful perusal of the above summary of a century of educational development of England, it would appear that the question of education, elementary, secondary, higher and industrial, has, generally speaking, been attempted to be solved by the people themselves, and that State aid came only to supplement the efforts of the public. [On the Continent, however, and specially in Germany, the most distinguishing feature of educational development is that it was originally fostered and promoted by the Government]. The next point is that in England the progress or development of educational institutions went hand in hand with certain reform movements among the people and the growth of arts and manufactures. The rise of the *middle classes* is a marked feature in the political and commercial history of England of the nineteenth century. To-day, in the twentieth, we are witnessing another development—the growth and power of the merchant-princes, the multi-millionaire capitalists who are the pillars of Modern Imperialism in commerce. We have to see what this form of Imperialism leads to. In the meantime, we must note that it is the public spirit and generosity of the *middle classes* that have been instrumental *in the main* in making England what she has been in the Victorian Era. In India, the middle classes have not yet sufficiently grasped the seriousness of the problem of national regeneration. Something is wanting in them which will enable them to make light

of present-day difficulties and to infuse into them a spirit of noble sacrifice. The example of the English people themselves whose capacities for sacrifice in the cause of their own country seem to be endless is always before us.

Educated Indians have constantly before them this example—of English self-help, the Englishman's public spirit and his sacrifice for all that concerns his national life. Let us look at and ponder this side of his character and draw what sustenance and life we can from such contemplation.

M. A.

ANTIQUITY OF THE ART OF WRITING IN INDIA.

It is a common notion that after the *nirvan* of Buddha, His oral teachings were reduced to writing, and that the occasion saw the introduction of writing into ancient India. Megasthenes, we read, wrote his accounts during his sojourn in the court of Chandragupta. Some conjecture that writing existed in India during the time of Mohendra, son of King Asoka. If that is accepted, we virtually admit the use of writing before the time of Asoka. In the opinion, however, of the late Prof. Max-Müller, "even at the Buddhist Council when their sacred canon, Tripitaka, was settled, we hear nothing of paper, ink, reeds, but only of oral and musical repetition. The very name of a council was Sangiti or Moha. Sangiti, *i.e.*, singing together of the different parts of the canon; which shows that the same was not consigned to writing, but rehearsed by certain individuals. Whenever there arose a dispute as to the true teaching of Buddha, it was not settled by an appeal to any MSS., but an invitation was addressed to a number of Sanghas who knew the text by heart. It is actually mentioned that the southern canon was not reduced to writing till the first century B. C." These sentences need not be contradicted by us, being contradicted by the 'edicts.' Further, Buddha, we know on the authority of Lalitavistara, learnt different alphabets prevailing in India. The question of the antiquity of the art of writing in India is of vital importance to every student of our ancient History, as on it hang theories as to the origin and development of history in Bharata.

Dr. Bühler upsets the theory of Max-Müller, holding the Indian alphabet to be as old as 400 B. C. .He dates the origin of writing in India about 800 B. C.; and opines that the alphabet was imported from Mesopatamea by the Indian merchants. We hold,

however, quite a different view. And this, for reasons given below in order:—

(*a*) In Manu Samhita we find the sloka.

श्रुतिस्तु वेदो विज्ञेयो
धर्म्मशास्त्रन्तु वै स्मृतिः।

2—10.

Now it is well-known that 'श्रुति' and 'लिपि' are two contradistinguished terms. Thus, since 'Shruti' is distinguished from 'lipi,' little room is left for doubting the prevalence of writing during the days of the Ramayanam, the Mahabharat, or the Manu Samhita. The Vedas and *Dharma* Shastras were preserved *orally*; and the *other* Shastras, of which there were so many, must be inferred to have been recorded *in writing*. This idea is very clear from the sloka above. In the same work, we read.

अज्ञेभ्योग्रन्थिनः श्रेष्ठा
ग्रन्थिभ्यो धारिणो वराः।
धारिभ्यो ज्ञानिनः श्रेष्ठा
ज्ञानिभ्यो व्यवसायिनः॥

Manu—12—103.

[The reader (of a *book*) is superior to an ignorant person; one who *retains* a book is superior to a reader, &c.]

(*b*) Going through 'the Epics' and other ancient works, one not seldom comes across two distinct words, अध्ययन (पाठ) and श्रवण। Manu lays down rules for 'reading-times' and 'non-reading times' अध्ययन काल *e. g.* of 'पाठ'।

यः पठेद्रामचरितं सर्व्वपापैः प्रमुच्यते।

Adikanda—1—99.

(*c*) Harivansa, the book recording the race of Hari, is known to all as an appendage of the Mahabharat. *This* book records what we conceive to be very convincing evidence on the point. In writing of the infancy of Shrikrisna, the chronicler speaks of His वर्णशिक्षा।—His learning the alphabet.

It is also known that Shrikrishna mastered sixty-four arts (कला) under Sandwipani Muni. These कला's point to the art of '*symbolic* writing' (साङ्केतिक लिपिज्ञान)

(*d*) In the Savaparva of the Mahabharat, we observe Yudhisthira gaming on chariots, &c., and coins. Allusions of coins are very frequent in both the 'epics'

ताम्रलोहैः परिवृतान्निधयो ये चतुःशताः ।
पञ्चद्रौणिक एकैकः सुवर्णस्याहतस्य वै ॥

Sava, Ch. LXI.

(*e*) Proceeding further, in the Geeta we find the blessed Lord declaring to Arjuna अक्षराणामकारोऽस्मि द्वन्द्वः सामासिकस्य च ।

[I am the letter अ of the alphabet and the द्वन्द्वः among the compounds. अक्षर from its etymology means, that which has no change. अक्षर and वर्ण are two synonyms; वर्ण conveys the idea of a shape of a thing. In grammar, long before Panini, there were rules for elision, (वर्णलोप) for लोप means, what is no longer *seen*. अदर्शनं लोपः ।

(*f*) In Savaparva we find the divine sage Narada asking Yudhisthira, as was the custom then, as to how he was governing his kingdom. He inquired further if the *writer* and the *accountants* would produce before him on the forenoon of the day (while in court) the respective accounts.

कच्चिदायव्यये युक्ताः सर्व्वे गणकलेखकाः ।
अनुतिष्ठन्ति पूर्व्वाह्णे नित्यमायव्ययन्तव ॥

Sava, Ch. V. Sl. 72.

[*Vide* also sloka 67.]

And going into greater details, the sage inquired if the works on science of arms and machine were studied in his Palace.

कच्चिदभ्यस्यते सम्यग् गृहे ते भरतर्षभ ।
धनुर्व्वेदस्य सूत्रं वै यन्त्रसूत्रञ्च नागरम् ॥

Ibid 121.

(*g*) During the exhibition of arms (अस्त्रदर्शनम्), the Kaurava and Pandav princes discharged arrows on which were *inscribed* the names of the princes.

मनुजाधृष्टमपरे वीराश्चक्रुः सुविस्मिताः ।
तैश्चलक्ष्याणि विभिदुर्बाणै र्नामाङ्कशोभितैः ॥

Adiparva, Ch. 134, Sl. 25.

(*h*) The Mahabharat, is generally supposed, to be an oration of

Vyas delivered before the Rishis. That is not the case however. It is expressly laid down in Bk I, that the Rishi completed his work *working systematically at it with a pure heart, for the space of three years.* It can safely be inferred, therefore, that the book was *written.*

त्रिभिःवर्षैर्लब्धकामः कृष्णद्वैपायनो मुनिः
नित्योत्थितः शुचिः शक्तः महाभारतमादितः
तपोनियममास्थाय कृतमेतन्महर्षिणा ॥

Adi, Ch, 62, Sl, 41—42.

(*i*) Not only that. In the prefatory chapter it is given that the Rishi asked Ganesh to be the *writer* of his book. To this Ganesh agreed, but on condition that he would *write* so long as his pen would not have to stop. 'Very well,' replied the Muni, 'but you must not write anything unless you have well made out the sense.' The sage went on dictating and the pen of Ganesh glided on.

काव्यस्य लेखनार्थाय गणेशः स्मर्यतां मुने ।

Adiparva, Ch. I., Sl. 73.

व्यासोऽप्युवाच तं देवमबुद्ध्वा मा लिख क्वचित् ।
ओमित्युक्त्वा गणेशोऽपि बभूव किल लेखकः ।

Ibid 79.

From all these evidences we can very well infer the existence of the art of writing in India from very remote times indeed—the days of the Mahabharat. But the art may be traced even to the days of the Ramayanam which dates before the Mahabharat. Those holding a contrary view would please look over Vana-parva, Visma-parva, or the first and second chapters of the Ramayanam.

(*j*) Coming now to the second chapter of the Adikandam, we know that the Maharshi composed a kavya in sloka metre (his own invention), formed of equal *letters* in each *foot,* sanctioned by *grammar.*

उदारवृत्तार्थपदैर्मनोरमै
स्तदास्य रामस्य चकार कीर्तिमान् ।
समाक्षरैः श्लोकशतैर्यशस्विनो
यशस्करं काव्यमुदारदर्शनः ॥

Adi, Ch. II. Sl. 42.

(*k*) Hunuman when brought before Ravana after his acts of plunder was ordered to be slaughtered. Bivceson, the brother of the king, interfered and said: 'The death of a messenger is never sanctioned by the laws of politics. It is nowhere mentioned in the Raj Shastras.'

दूतवध्या नदृष्टाहि राजशास्त्रेषु राक्षस ।
दूतेन वेदितव्यञ्च यथाविहित वादिना ॥

Sundarakanda, Ch. 58, Sl. 149.

(*l*) In the Kiskindhya Kanda we find much evidence of writing. Hanuman when he went abroad to search for Sita who had been stolen by Ravana, took with him a ring on which was *imprinted* the name of Prince Rama. That was the only means of identifying the ring.

ददौ तस्य ततः प्रीतः स्वनामाङ्कोपशोभितम् ।
अङ्गुलीयमभिज्ञानं राजपुत्रः परन्तपः ॥

Kiskindhya Kanda, Ch. 44, Sl. 12.

(*m*) The Ramayana was first composed up to the Lanka Kanda, and the Uttara Kanda was subsequently added to it by the poet himself. We notice that those who will *write* that 'arsha' Ramayanam shall have abode in heaven.

भक्त्यारामस्य ये चेमां संहिता मृषिणा कृताम् ।
येलिखन्तीह च नरास्तेषां वास स्त्रिविष्टपे ॥

Lanka Kanda, Ch. 130, Sl. 120.

(*n*) Also in the concluding 'Sarga' the very same idea is expressed. We need not quote the sloka which will only burden the body of this article.

GOLOKBIHARI MUKHOPADHYAY.
